

A study of the effect of academic factors on the position promotion of employees in state-owned enterprises

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Abstract

State-owned enterprises (SOEs) are vital to China's economy, yet the influence of educational background on employee promotions within these entities remains underexplored. This study examines how academic qualifications impact career advancement in Chinese SOEs using quantitative surveys and qualitative interviews with 1457 employees and 60 in-depth interviews across hierarchical levels in a state-owned bank.

The research, grounded in human capital and social status attainment theories, employs logistic regression to analyse educational attainment's impact on promotion likelihood, while qualitative data reveal employees' experiences concerning academic qualifications and career progression. Results indicate that higher educational attainment significantly enhances promotion prospects in SOEs, especially for employees from prestigious universities, who enjoy a competitive advantage.

The study also highlights that educational background positively influences female promotions, enabling women to overcome gender biases and workplace barriers. Additionally, shared educational backgrounds between employees and supervisors were linked to accelerated promotions, emphasising the role of educational networks.

This research deepens understanding of education's role in social mobility within SOEs, offering insights for fairer promotion practices. Policy recommendations include supporting continuous education, recognising diverse academic backgrounds, and ensuring transparent promotion criteria, thus advancing discourse on career development in Chinese SOEs.

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1.Chapter 1: Introduction

1.1 Background to the study

State-owned enterprises (SOEs), as an essential component of China's economy, play a significant role in economic and social development. The origin of China's state-owned enterprises can be traced back to the Chinese People's War of Resistance against Japanese Aggression before the founding of New China. To support the war and guarantee supplies, some public enterprises were founded in various resistance bases, and the more representative ones, such as the predecessor of the China Resources Group, were the underground transportation stations established by the Communist Party of China (CPC) in Hong Kong in 1938 for the resistance war. These enterprises had an explicit public nature, which laid the foundation for the subsequent development of state-owned enterprises.

After the founding of New China, state-owned enterprises became the most essential part of the national economy. In the early days of the founding of New China, state-owned enterprises came from several sources: first, the confiscation of bureaucratic capitalist enterprises, such as the family enterprises of high-ranking officials and powerful nobles of the Republican government, and the industries of the enemy and pseudo-faithful forces, such as those of the forces of the pseudo-Manchukuo, etc.; second, the transformation of the national capitalist industrial and commercial enterprises into state-owned enterprises using peaceful ransom, as in the case of the famous Shenxin Textile Company in Shanghai, etc.; and, third, the construction of newly-funded new enterprises funded by the state. These state-owned enterprises played an essential role in economic recovery and construction after founding the People's Republic of China.

The development of Chinese state-owned enterprises has gone through many stages. After the founding of New China, China comprehensively studied the economic model of the Soviet Union and followed the Soviet Union to carry out public ownership reform. In 1956, China entirely completed the three major reforms. All the private enterprises became state-owned enterprises by way of redemption. Since then, until the Reform and Opening Up, China has adopted the planned economy model with state-owned enterprises as the main body and China entered the planned economy era.

State-owned enterprises in this period were different from enterprises in the usual sense; they had a highly centralised management system, their production and business activities were under the direct control of the national plan, and they needed the market competition mechanism. These state-owned enterprises were more like production departments of the government, and their main goal was to fulfil the production tasks assigned by the state rather than to pursue economic efficiency or market share.

To a certain extent, this system has ensured the orderly construction of the socialist economy, but it also suffers from inefficiency and irrational allocation of resources. Under this system, the wages and benefits of employees of state-owned enterprises are uniformly stipulated by the state, and at the same time, state-owned enterprises undertake certain social functions, such as providing employees with housing, medical care, education and other benefits, and these non-productive burdens add to the operating costs of the enterprises. Moreover, due to the impact of frequent political movements on the social environment, the average production order of state-owned enterprises was interrupted many times.

Nevertheless, during the period before the reform and opening up, the state-owned enterprises still better fulfilled the requirements of the national economic construction, and all the economic achievements made by the new China before the reform and opening up had the figures of the state-owned enterprises.

After the reform and opening up, state-owned enterprises have experienced a long and profound reform. This reform, on the one hand, is to solve the stubborn problems of the state-owned enterprises themselves, that is, the lack of autonomy, inefficient operation and rigid administrative system shown in the last era of the state-owned enterprises, to make them become enterprises in the modern sense instead of the original administrative branches of the government; on the other hand, it is to deal with the phenomenon of the public system occupying too high a proportion, after the reform and opening up of the Chinese government began to develop non-publicly owned enterprises, and allowed the private enterprises and foreign-funded enterprises and other forms of enterprises to grow.

On the other hand, in response to the overrepresentation of public ownership, after the reform, the Chinese government began to develop non-public enterprises, allowing the existence of private and foreign enterprises. This meant reforming the management authority of the initially monopolised state-owned enterprises and redistributing economic functions. Before the 1990s, the main results of this reform were the expansion of business autonomy, the reform of the enterprise leadership system, and the beginning of attempts at shareholding reform in some enterprises.

After the 1990s, China gradually established a market economy to replace the original planned economic system. At that time, state-owned enterprises faced the pressure of market-oriented reforms. The long-accumulated inefficiencies, rigid management system, heavy burden of employee benefits, and the impact of external competition from private enterprises all created enormous pressure on the survival of state-owned enterprises, and eventually, at the end of the 20th century, a “wave of bankruptcies” of state-owned enterprises occurred. “Wave of bankruptcies” at the end of the 20th century, many poorly run state-owned enterprises were closed, an essential result of market-oriented reforms.

At the same time, to adapt to the needs of the market economy, state-owned enterprises began to try to “modern enterprise system construction”, which means further separation of government and enterprises so that state-owned enterprises are closer to modern enterprises. In the 21st century, the reform of SOEs was further advanced. In 2003, the State Council established the State-owned Assets Supervision and Administration Commission (SASAC), which performs the duties of an investor and supervises SOEs, a department that continues to this day. The emergence of the new department changed the previously confusing phenomenon of state-owned enterprises. At the same time, the ownership and management of state-owned enterprises were further separated. In the same year, the State Council began a pilot program to build a system of boards of directors for SOEs to improve the management structure of SOEs further. By 2022, the boards of directors of SOEs had been fully implemented, and the system of outside directors had been improved. The reform of state-owned enterprises is still ongoing, and existing state-owned enterprises have established a modern enterprise system, with most of them carrying out shareholding reforms and some carrying out mixed-ownership reforms and introducing external investors.

At present, state-owned enterprises (SOEs) remain an essential part of China's economy. According to the State Council, the central enterprises among the SOEs will realise 39.8 trillion yuan of operating revenue, 2.6 trillion yuan of total profit, 1.1 trillion yuan of net profit attributable to the mother, and 1.1 trillion yuan of investment in research and development (R&D) in 2023. According to the Ministry of Finance, the country's SOEs in 2023 will have a total operating revenue of 85,730.61 billion yuan and a total profit of 4,633.28 billion yuan. Compared to China's GDP of 1,260,582 billion yuan in 2022, SOEs do not account for much of China's economic composition. State-owned enterprises are widely distributed in various fields, such as energy, transportation, communication, finance, manufacturing, etc., and have a pivotal influence on the Chinese economy.

Like private enterprises, state-owned enterprises also face challenges in human resource allocation. Leveraging the value of human resources through reforming personnel systems, enhancing employee motivation, and improving competitive advantage has become a noteworthy issue in the reform of state-owned enterprises. Since China's reform and opening up, the influx of foreign enterprises has attracted many talents with their competitive advantages, heightening the urgency for personnel system reform in state-owned enterprises.

Salary and promotion incentives are two important aspects of human resource management in state-owned enterprises. However, the effectiveness of salary incentives is limited. This is partly because of China's economic development level and the enterprises' financial strength, making it challenging for state-owned enterprises to match the salaries offered by multinational companies. Moreover, salary and compensation in state-owned enterprises are subject to strict restrictions, and management's discretion in this area is limited.

For instance, central enterprises are directly managed by the State-owned Assets Supervision and Administration Commission (SASAC), which has clear salary guidelines. The total salary budget for employees in these enterprises is prepared according to the government's income distribution policy and SASAC's requirements, needing approval from SASAC, which also monitors the salary payments. Although internal salary distribution lacks explicit regulations, typically, subordinates' salaries do not exceed those of their superiors. The top managers of central enterprises have their salary incomes explicitly capped.

The State Council implemented an annual salary system for executives of state-owned enterprises in 2002, setting the initial cap at 12 times the average employee salary. This cap was further tightened in 2009 and 2015, with current regulations restricting executive compensation in central enterprises to no more than 7-8 times the average employee salary. As of 2022, the highest annual salary for executives in central

enterprises was 960,800 RMB, with Dai Houliang of China National Petroleum Corporation receiving 952,900 RMB, ranking third. Unlike many foreign counterparts, Chinese state-owned enterprises rarely implement stock incentive plans, and when they do, the scope is very limited.

Local state-owned enterprises are subjected to similar stringent salary restrictions and are under the management and supervision of SASAC. Recognising the rigidity of the salary system, the SASAC initiated a pilot reform in 2020 with ten central enterprises, allowing them to set their total salary budgets. However, the cap on executive salaries remains in place, limiting the scope of these reforms.

Furthermore, job promotions in SOEs offer higher salaries and, given China's official-based culture, a corresponding social status is regarded as equally important as economic benefits. Despite multiple rounds of reform, the bureaucratic characteristics initially prevalent in SOEs have been retained to some extent, intentionally or not. In China, managerial personnel in state-owned enterprises were historically referred to as "ganbu," a term still used today even after numerous reforms. Although lower-level management staff no longer hold administrative ranks, senior management often retains these levels and can be transferred to equivalent positions in government agencies. Therefore, promotions are critical for motivating employees and enhancing state-owned enterprises' economic efficiency and competitiveness. An effective promotion mechanism also influences the power structure within the organisation, impacting the reasonable distribution of power and resources and ultimately affecting the enterprise's effective operation and healthy development.

At the same time, job promotion in SOEs leads to higher salaries, and, given China's official-based culture, job levels in SOEs often correspond to corresponding social status, which is regarded as a reward that is as crucial as economic benefits. As mentioned earlier, state-owned enterprises were initially akin to branches of the government filled with bureaucratic characteristics. Despite undergoing multiple rounds

of reform, these characteristics have been retained intentionally and unintentionally. In China, "Ganbu" is translated as "official," referring to public officials in state organs, the military, and people's organisations who hold specific leadership or management positions. Early state-owned enterprise management personnel were called "Ganbu"; this title has been retained in state-owned enterprises even after numerous reforms. State-owned enterprises have undergone multiple rounds of de-bureaucratization reforms. Lower-level management staff no longer have administrative ranks; senior management personnel still possess administrative levels. They can be transferred to equivalent government agencies to hold public office. Therefore, it is natural that in the eyes of most employees, the managers of state-owned enterprises are still considered as a type of "official," just as a pawn in chess can become a queen. Therefore, promotion is an important measure to motivate employees in state-owned enterprises, which is of great significance in improving the economic efficiency and competitiveness of state-owned enterprises. Moreover, an effective promotion mechanism is related to the reasonable shaping of the power structure within the organisation of state-owned enterprises. This implies the reasonable distribution and effective use of power and resources in state-owned enterprises and ultimately affects the effective operation and benign development of state-owned enterprises.

At the 20th Congress of the Communist Party of China (CPC), Xi Jinping introduced a new concept regarding China's future development: the Chinese path to modernisation. This concept is a comprehensive summary of China's developmental path in the coming decades. It includes adhering to the leadership of the Communist Party, upholding socialism with Chinese characteristics, achieving high-quality development, and developing a whole-process people's democracy. Other aspects are enriching the people's spiritual world, realising shared prosperity for all, promoting harmony between humans and nature, advancing the construction of a human community with a shared future, and creating a new form of human civilisation.

Like other countries, modernisation is a pursuit of the Chinese people and an inevitable direction of China's social development. However, the path to modernisation varies across countries due to different national conditions. Modernisation has unique features for China: it aims to modernise a vast population of over a billion, surpassing the combined population of about 20 modernised countries. This ambitious goal requires a fair process, giving every individual the opportunity to achieve modernization, making it a daunting yet necessary task that requires collective effort.

The process emphasises fairness and justice to achieve shared prosperity, allowing everyone to strive for a better life. This reflects a profound philosophy of fostering material wealth and promoting social equity, ensuring people can improve their lives and realise their dreams through their efforts. The principle of allowing the capable to rise above the mediocre offers fair competition and encourages individuals to achieve personal value through hard work, thereby advancing social fairness and progress.

Reflecting on the history of New China, the Chinese government has always embraced the concept of achieving social fairness and justice. Initially, many impoverished proletarians were provided land and job opportunities through land reform, and the establishment of state-owned enterprises helped many become workers. The government promoted labour participation, awarding diligent farmers, workers, and intellectuals honours. Many honoured as model workers later ascended to leadership positions, like Zhang Baifa, a former construction worker who became Deputy Mayor of Beijing, and Li Ruihuan, a carpenter for 15 years before becoming a cadre.

Before the reform and opening-up, diligent workers and farmers with strong abilities received recognition and were often promoted to high-level positions, reflecting the need for talent in agriculture and industry. Post-reform, the government encouraged the development of the private economy. Capable executives of underperforming state-owned enterprises revitalised them as private enterprises, with many of today's

well-known private companies, like Qingdao Haier, originating as state-owned enterprises.

After the 18th National Congress of the CPC, the government intensified efforts to ensure social fairness and justice, including fighting corruption and strictly regulating the recruitment and promotion of public officials. This led to the downfall of numerous corrupt officials and renewed the atmosphere within government agencies and state-owned enterprises. Promotions in these entities began to rely more on transparent processes, with personal effort playing a crucial role. This shift emphasised the importance of education as a means of social mobility and personal development.

Education has changed one's destiny and social status since the restoration of the college entrance examination system in 1977. The college entrance examination is a significant selection mechanism, allowing students from all backgrounds to enter top universities and change their futures through personal effort. Today, academic qualifications play an essential role in Chinese-style modernisation, emphasising rapid economic growth and the continuous pursuit of social fairness and justice. Through various means, including fair education, labour and employment policies, and improving the social security system, Chinese society maintains its vitality, ensuring everyone can share in the fruits of development and achieve personal value and social harmony. In pursuing Chinese-style modernisation, the government provides various support policies and a favourable environment for entrepreneurship and innovation, enabling individuals to unleash their potential and contribute to social and economic development. This approach builds a vibrant and fair society, offering a unique development model to the world and showcasing a path to modernisation that simultaneously achieves economic growth and social fairness.

1.2 Problem statement

Since the middle of the 20th century, with the development of research related to human resources, some views have been put forward concerning the human workforce as a kind of capital involved in the production of labour. This viewpoint can well explain the wage enhancement brought by educational experience for workers, as well as the return of interests brought by the investment of enterprises in the training of employees, and this kind of theory eventually develops into the theory of human capital. In human capital theory, education is a crucial way to enhance human capital, and educational attainment is the embodied form of human capital. For society, providing higher-quality education for the whole population means accumulating human capital across the entire society. At the same time, for enterprises, the educational attainment of employees is the embodiment of the advantages of their human capital, and thus, educational attainment, as the embodiment of the individual's capital and the marginal returns of labour, are naturally closely related to the promotion of individuals.

In China, there has always been a close link between educational attainment and job promotion, and education has long been regarded as an important means of personal growth and social progress. As the Chinese sage Confucius once said, “Learning is the best way to get a job”, and traditional Confucianism emphasises the importance of education to the individual and society, which has profoundly influenced the meaning and status of educational attainment in Chinese culture. In modern China, academic background is still essential to individuals, and educational attainment is often the core pursuit of individuals after a long education period. At the same time, due to the influence of traditional culture, families attach great importance to education, and investment in their children's education is often a vital family expense. Similarly, the recognition of education and educational attainment in Chinese society is also deeply influenced by traditional culture, and educational attainment is often regarded as a

guarantee of an individual's ability and reputation. Against this background, it is worthwhile to explore in depth the role educational attainment plays in the promotion mechanism of state-owned enterprises. The level of education has a clear correlation with an individual's salary level and career development and also plays a significant role in an individual's promotion. Some studies have shown that in large organisations, education has an even higher impact on promotion than job performance; in the management of state-owned enterprises, some Chinese scholars have found that the higher the education of executives at the level of chairman of the board and secretary of the party group, the easier it is to gain further political promotion. All these research results produce guidance and inspiration for the research direction of this study, i.e., the influence of education on the positional promotion of employees in state-owned enterprises.

Currently, research on promotion mechanisms within state-owned enterprises primarily focuses on the most senior leadership positions, such as the Chairman of the Board and the Party Group Secretary. These roles often carry a strong official or bureaucratic nature, akin to administrative officials within the government. It is common for individuals in these top SOE positions to have previously held, or will later hold, leadership roles in government or party organizations. Consequently, these individuals are not typical “employees” in the conventional sense. Therefore, the study of the promotion mechanism of this type of SOE “employees” is more inclined to the study of the promotion of government officials rather than purely a study of the personnel system of SOEs. On the contrary, the promotion mechanism of the majority of state-owned enterprise employees is often neglected, and this kind of research and investigation urgently needs to be supplemented. This study conducts an actual questionnaire survey on the real situation of state-owned enterprise employees, so as to further analyse the influence of educational background on the promotion of state-owned enterprise employees and tries to explain this phenomenon and make up for

the gaps in related research. At the same time, educational background, as an important part of networking, is uniquely helpful in understanding the impact of networking and relationships on promotion. The connotation of networking is extremely rich, and as a microcosm of a person's long schooling career, the implied networking behind it is worth exploring, and taking educational background as an entry point for the theory of relationship is a meaningful direction.

Based on this background, the research will explore the impact of educational background on employee promotions within Chinese state-owned enterprises. The study will investigate the correlation between educational attainment and employee promotions, which will directly indicate how educational background influences employee advancement. Additionally, the research will attempt to explore the differences in this impact when employees are at different job levels. Furthermore, the study will broadly consider educational background as a potential factor influencing employee promotions, incorporating discussions on the geographical relationship between alma mater and company, as well as the educational similarity between employees and their direct supervisors. These broader factors will help explain the mechanisms by which educational background affects employee promotions from various dimensions. Moreover, gender issues are indispensable in related research on employee promotions, serving as an entry point to reflect changes of the times. This study will discuss the impact of educational background on the promotion of female employees and explore the causes of this impact.

1.3 Purpose and significance of the study

Previous discussions on the promotion mechanisms within state-owned enterprises have predominantly focused on the impact of performance factors. However, the literature often reveals significant deficiencies when addressing this topic. A notable amount of research, such as the “competition model” proposed by Zhou (2007),

concentrates mainly on quantifiable indicators like economic performance, largely overlooking qualitative factors such as leadership abilities and educational backgrounds. This oversight leads to an incomplete understanding of the promotion mechanisms, as these qualitative factors play a crucial role in promotion decisions.

Furthermore, the influence of non-performance factors—such as gender, age, educational background, and political connections—on promotion decisions is rarely explored in depth. For instance, while Liu (2008) broadened the discussion to include factors like political loyalty and public opinion, there remains a scarcity of methodologies for quantitatively assessing these non-performance elements. Additionally, many studies are restricted to specific regions or industries, limiting their findings' general applicability. For example, Qiao (2013) focused on the promotion mechanisms for Chinese officials. Still, such studies often do not extend their insights to the diverse types and operational scopes of state-owned enterprises that vary significantly across different regions and industries.

Moreover, there is limited empirical data research on internal promotion policies, and discussions on how institutional changes influence promotion mechanisms are limited. These gaps suggest a need for more comprehensive research that captures the multifaceted complexity and dynamic changes in promotion decisions within state-owned enterprises. For example, studies by Zhou (2007) and Yang (2013) primarily examine the promotion of senior executives in state-owned enterprises or government officials without giving sufficient attention to lower-level managers, especially in finance-related industries. These managers do not typically have identities as pronounced as administrative officials, which may be more common among business middle managers.

The research addressed these gaps by taking a comprehensive approach that considered multiple factors and integrated data from state-owned enterprises across various regions, using the financial sector as a focal point. This approach allowed for a

more detailed and nuanced understanding of the promotion mechanisms in state-owned enterprises. We discussed the impact of non-performance factors and investigated the role of educational attainment based on human capital theory. As a vital aspect of human capital, educational attainment is linked to individual productivity and the developmental potential of enterprises. Understanding its influence on promotion is crucial for evaluating enterprise promotion mechanisms' current state and fairness. Ultimately, this study provided insights for optimising human resource management in state-owned enterprises.

At present, in the promotion process of state-owned enterprises, the human capital of employees was considered by enterprises when evaluating their future learning ability and development potential in the face of diversified work. Despite the complexity and variety of factors affecting employee promotion, educational attainment has attracted more attention in recent years, both from the perspective of enterprises and employees. From the beginning of recruitment, enterprises employing educational attainment have made it a critical threshold and a “knock on the door” for employees. In other similar conditions, the academic factor became an essential criterion for recruitment in state-owned enterprises. Similarly, in the process of employee job promotion, educational attainment became a difficult threshold to cross for success or failure.

This study delved into the dynamics of job mobility within state-owned enterprises (SOEs), specifically examining the prerequisites for employee promotion such as educational attainment, performance metrics, and social connections. It explored how these elements influenced the promotion process within SOEs, aiming to shed light on their employees' career progression and social status attainment during the ongoing reform and transformation of China's state-owned sector. By addressing the existing research gaps in the promotion mechanisms of SOE employees, particularly in terms of the impact of educational backgrounds, work performance, and the associated social

networks and resources on promotion outcomes, this study sought to provide a deeper understanding of how these factors collectively shaped the career mobility and social status of SOE employees. This investigation contributed new insights and perspectives to the discourse on employee career development amidst the evolution of China's state-owned enterprises, offering a comprehensive analysis that intertwined the personal attributes of employees with the broader institutional changes. Focusing on the prominent role of educational factors in the career advancement of SOE employees through the lens of human capital theory, it provided empirical evidence and decision-making reference for the employment choices of university graduates. It analysed the influence of educational attainment at different stages of employees' career development, providing theoretical and practical reference for job seekers and employees with promotion needs.

1.4 Thesis Structure

This study takes human capital theory, social capital theory, social status acquisition theory and senior ladder theory as its theoretical basis. It takes the literature review as its starting point to, firstly, sort out different promotion concepts as well as forms and, secondly, think about the factors affecting promotion, and choose one of the factors of employees' demographic characteristics based on human capital - the educational attainment factor is studied in depth. The influence of the variable on promotion is analysed in depth using logistic regression model. This study focuses on the influence mechanism of academic factors on employee promotion, based on the review and collation of relevant literature and actual questionnaire survey, through systematic analysis and sorting out the relationship between relevant variables to determine the research framework and research ideas, hoping to provide appropriate guidance for the future development of management theory and practice, the specific content is as follows:

Chapter 1: Introduction

This chapter introduces the research by providing an overview of the background, research questions, and objectives. It outlines the study's significance and sets the context for the research. This chapter also introduces the theoretical frameworks, including human capital theory, social capital theory, social status acquisition theory, and senior ladder theory, that underpin the study.

Chapter 2: Literature Review

The literature review chapter provides a comprehensive overview of existing research related to employee promotion. It critically examines different promotion concepts and forms, as well as the factors affecting promotion. The chapter focuses on educational attainment as a key demographic characteristic influencing promotion and identifies gaps in the current literature. This sets the foundation for the study's research questions and hypotheses.

Chapter 3: Research Methodology

This chapter details the research design and methodology employed in the study. It explains the rationale for selecting a logistic regression model to analyse the influence of educational attainment on promotion. The chapter describes the development of the questionnaire and interview instruments, the sampling strategy, and the data collection procedures. It also discusses the identification of relevant variables, and the methods used to ensure the validity and reliability of the data.

Chapter 4: Data Analysis and Results

In this chapter, both the quantitative and qualitative data collected from the questionnaires and interviews are analysed. The chapter presents the results of the logistic regression analysis, tests the research hypotheses, and examines the relationship between educational attainment and promotion. It provides detailed statistical findings and interprets the results in the context of the research questions. Additionally, the chapter summarises the key themes and patterns that emerged from the interviews,

providing an in-depth understanding of how educational attainment influences employee promotion. Integrating quantitative and qualitative findings offers a comprehensive analysis of the influence mechanisms.

Chapter 5: Discussion, Conclusion, and Recommendations

This chapter provides a comprehensive discussion of the findings presented in Chapter 4. It interprets the results considering the theoretical frameworks and existing literature discussed in Chapter 2. The chapter explores the implications of the findings for management theory and practice, discusses the study's limitations, and suggests areas for future research. It critically evaluates the study's contributions to the field and the broader implications for understanding the role of educational attainment in employee promotion. Finally, it summarises the main findings, highlights the critical contributions of the research, provides practical recommendations for enterprise management and policymakers, and proposes directions for future research.

1.5 Methodology

In this study, survey research and descriptive case study approach were deployed to comprehensively explore the impact of educational background on the promotion of employees in state-owned enterprises—the research design integrated questionnaire surveys and semi-structured interviews to collect both quantitative and qualitative data. To ensure the representativeness and validity of the data, we designed and adopted a stratified random sampling method, selecting samples from multiple branches of a large state-owned bank. The questionnaire collected basic information, including employee position, age, gender, initial and final educational attainment, and promotion status. To gain deeper insights into the complex factors affecting promotion, we conducted semi-structured interviews focusing on the impact of educational background on career development. This study used a logistic regression model to analyse the data statistically to uncover the potential correlation between educational background and promotion.

We also implemented quality control measures, including multiple cross-checks during the transcription and analysis processes, repeated coding and cross-validation, and detailed documentation to ensure data consistency, stability, and authenticity. Through these methods, this study aims to provide in-depth insights into how educational background influences the promotion of employees in state-owned enterprises.

1.6 Definition of concepts

1.6.1 State-owned enterprises

In China, state-owned enterprises (SOEs) are extensive and large, and can be categorised into wholly state-owned enterprises (WSOEs) and state-owned capital-controlled enterprises (SOCEs). Wholly state-owned enterprises (WSOEs) are government-funded and controlled enterprises, either by the State Council or by local governments, and are thus classified as either centralised or local enterprises, and are usually managed by the corresponding government agency, the State-owned Assets Management Committee. It is also common for state-owned enterprises to be controlled by state capital, which are more dispersed in terms of shareholding, but still under the control of the government. Further, those funded and controlled by SOEs are also SOEs, and their control is ultimately vested in the government or the parent SOE. Generally speaking, centralised enterprises are those with a higher administrative level, larger scale and an important position in the country's economic composition, but at the same time, there are also some larger, more dispersed SOEs, which are not strictly centralised, but whose chairmen and party secretaries have a similar administrative level as those of centralised enterprises. The research content of this study focuses on the promotion of different levels within the state-owned enterprises, with large, relatively complex, multi-level enterprises as the research sample can obtain more accurate and comprehensive information, and the conclusions obtained also have a certain degree of universality. The research object of this study is a large-scale state-owned enterprise.

1.6.2 Job promotion mechanisms

The core of this study's research is the complex mechanism of job promotion in state-owned enterprises. This mechanism, which is the primary focus of the study, is not a straightforward process. Due to the inherent characteristics of administrative promotion in SOEs, the promotion of positions is often characterised by political promotion. This involves a flow of personnel between SOEs and government agencies, for example, the party secretary and chairman of the board of directors of central enterprises are often not the end point of the promotion of positions in SOEs. Personnel holding such positions are usually reassigned to governmental agencies, and similarly, there are personnel transfers in the opposite direction. The promotion mechanism studied in this study is the intricate promotion mechanism within the state-owned enterprises, which refers to the mechanism for employees to get promoted within the state-owned enterprises. This study is going to study the influence of this mechanism, with a particular focus on the role of educational factors in the promotion mechanism of state-owned enterprises.

1.6.3 Job promotions

In State-owned enterprises, promotion takes various forms. In the broadest sense, promotion may include the promotion of positions, technical titles, and the enhancement of welfare benefits. Among them, promotion of position is the most essential form of promotion, and this kind of promotion includes both the expansion of authority and the enhancement of the remuneration package. Employees can increase their income, work responsibility and authority when promoted, and the level of treatment within state-owned enterprises usually represents the corresponding social status. The promotion can also provide employees with more opportunities to improve their abilities, so the promotion of positions can significantly affect the employees' work motivation. This study takes job promotion as the research content. It explores the

influence of educational attainment on the promotion mechanism of state-owned enterprises by studying the factors that influence job promotion.

Due to the administrative characteristics of the personnel system of state-owned enterprises, the promotion of positions in state-owned enterprises is usually direct and clear, directly manifested in the promotion of the level. The promotion level from low to high includes the deputy section chief level, the section chief level, the deputy director level (three-level vice), the director level (three-level positive), the deputy director-general level (two-level vice), the director-general level (two-level positive), the vice-ministerial level, and so on, and usually each time the promotion will only raise a level, and with the level of the As the level rises, the number of people promoted decreases significantly. For state-owned enterprises of different natures, the division of grades may be more detailed, and the names of the corresponding grades may vary. Still, they usually correspond to administrative grades like those of civil servants. The promotion of these administrative levels is critical for the change in employees' treatment and power. The promotion levels mainly studied in this study lie in four promotion stages, from ordinary employees to four levels upwards, with four total stages.

1.6.4 Educational attainment

Educational attainment and degrees in the Chinese context are broad concepts often used interchangeably, collectively called academic attainment. Educational attainment describes a person's level and degree of education, typically categorised as junior college, undergraduate, and postgraduate levels. On the other hand, Degrees are specific honours awarded upon meeting the academic requirements of higher education courses, including associate degrees, bachelor's degrees, master's degrees, and doctoral degrees.

In the job market, educational attainment is usually segmented into five categories: below associate degree, associate degree, bachelor's degree, master's degree, and doctoral degree. Additionally, universities are categorised as prestigious and

non-prestigious. Universities involved in Project 985 and Project 211 are considered prestigious. These projects, initiated by the Chinese government, aim to enhance the research standards and quality of higher education in China. Project 211 started in 1995, focusing on strengthening about 100 critical universities for the 21st century. Project 985, launched in 1998, aims to develop world-class universities by providing significant funding to improve their global competitiveness, research output, and academic excellence.

This study adopted these divisions in its survey and data collection. It also distinguished between initial and final educational attainment within state-owned enterprises. Initial educational attainment refers to the first full-time educational level an employee achieves, often reflecting their performance in the college entrance examination. This exam holds a high status in Chinese culture, sometimes likened to the ancient imperial examination system used for selecting officials. Due to the competitive job market and the high volume of applicants, enterprises often use initial educational attainment as a screening threshold.

Moreover, employees in state-owned enterprises may pursue further education after employment to enhance their qualifications. Therefore, this study also examined whether employees obtained their final educational attainment before or after joining the company, as this differentiation provided valuable insights into career progression and educational impact within these enterprises. Educational attainment is currently used as an essential criterion and condition to measure the promotion of job seekers and workers in state-owned enterprises' recruitment and talent market. Whether it is from the speed of development of the modernization process or the Chinese government's emphasis on the improvement of the quality of the population, people's attention to the factor of educational attainment will become even more robust, which has become an essential criterion for the promotion of employees of state-owned enterprises.

1.6.5 Conditions for promotion to positions in State-owned enterprises

Within state-owned enterprises, there are usually two aspects to the promotion of employees. On the one hand, there is the requirement of political and ideological awareness, which is mainly to abide by the basic guidelines and policies of the Communist Party of China, as well as to possess a certain level of morality. On the other hand, there are more precise requirements for educational attainment. Employees targeted for promotion need to fulfil specific regulations regarding performance, academic level and job educational attainment; for example, the annual appraisal has been excellent for the past two consecutive years or has been competent for the past three consecutive years or more. For those who have not yet undergone annual appraisal, the pre-selected candidates may confirm whether they meet the principle requirements of this eligibility condition based on their moral and aptitude performance and work achievements in the past two or three years. For promotion to the rank of section chief or deputy section chief, the person should have an educational level of high school, junior college or above; for promotion to the rank of director or deputy director, the person should have an academic level of junior college or above.

1.7 Summary

This chapter introduces the background, research questions, objectives, significance, and study methods. Firstly, the research background discusses the historical development of China's state-owned enterprises (SOEs), market-oriented reforms, and their significant role in economic and social development. Next, the research questions focus on exploring how educational background influences the promotion of employees within SOEs, including initial educational attainment, in-service education, and the similarity with the supervisor's academic background. The study's main objective is to uncover the specific mechanisms by which educational background affects the

promotion of SOE employees. The study employs a stratified random sampling method to select samples from multiple branches of a large state-owned bank and uses a logistic regression model for data analysis. The research collects quantitative and qualitative data by conducting questionnaires and semi-structured interviews, analysing employee positions, ages, genders, educational backgrounds, and promotion statuses. Ultimately, this study aims to provide theoretical support and practical references for human resource management in SOEs, promoting the healthy development of SOEs and the career growth of their employees.

2. Chapter 2: Theoretical Foundation And Literature Review

This chapter discusses the fundamental theories that support this study and reviews the related literature, providing a solid theoretical foundation for the research on the impact of educational attainment on position promotion. The theories of Human Capital Theory, Social Capital Theory, Social Status Attainment Theory, and Upper Echelons Theory are unpacked. These theories explain how educational background influences an individual's promotion within state-owned enterprises, how educational attainment as social capital can assist in individual promotion, and the impact of educational attainment as a characteristic of corporate leadership on employee promotion pathways. Reviewing these theories will lay the theoretical and literature foundation for this study. Additionally, this chapter will introduce and summarise the existing literature on the definition of promotion concepts, the factors influencing promotion, and their relationship with education. Through the systematic organisation and analysis of existing research, this chapter will propose the hypotheses of this study, laying the groundwork for the unfolding of empirical research.

2.1 Relevant theories

2.1.1 Human capital theory

The introduction of the concept of capital can be traced back to Adam Smith (1776), who summarised the three essential elements required for production: land, labour and capital. The author states capital as that part of man's stock that he expects to afford him revenue (Smith 1976, p.363). This is a narrower definition, limiting capital to stock, and he categorised capital into fixed capital, which refers to goods that serve production over time, and working capital, which is goods consumed or converted into other forms

within a production cycle. Ricardo defines capital as “that part of a nation's wealth which is used for production, consisting of food, clothing, tools, raw materials, machinery, etc., necessary for labour”(Ricardo 1962). A further insightful study of capital was made by Karl Marx (Marx and Engels 1975); Marx observed the process of production and consumption of commodities and discovered that capital is generated in the social relations between the bourgeoisie and the labourers, i.e. it is the deprivation of surplus value that creates capital. Marx proposed that capital is a social concept because it cannot be generated without social activity. The above classical account of capital is usually categorised as the classical theory of capital, and the neo-capital theory pioneered introducing the concept of capital to individual human beings.

As early as the 18th century, Adam Smith referred to understanding labour as human capital in his discourse. In 1958, the American economist Mincer introduced the concept of human capital, which the author states is the cause of individual differences in income beyond natural ability and opportunity. Mincer argued that the loss of revenue from participation in the workforce due to a worker's education creates an opportunity cost and that this cost should be viewed as an investment in enhancing human capital (Mincer 1958). The cost should be regarded as an investment in enhancing human capital. Although the concept of human capital had existed for a long time, in the 1960s, many scholars still avoided considering the workforce as capital. Instead, according to traditional economic theory, economic growth must depend on increased physical capital and labour, a notion carried over from Ricardo's view, which could only explain a portion of the growth in national income in the United States between 1929 and 1957. Schultz (1960) explicitly proposed the introduction of human capital to solve this dilemma. Schultz is widely recognised as the founder of human capital theory. In a speech entitled “Investing in Human Capital”, delivered in 1960 when he was president of the American Economic Association, Schultz boldly and explicitly articulated the ideas of the concept and nature of human capital, the content

and means of investing in human capital, and the role of human capital in economic growth. In 1961, Schultz published the article “Investing in Human Capital”, a groundbreaking paper in which he elaborated on many economic growth problems that traditional economic theories could not explain and clearly stated that human capital is the leading cause of national economic growth in today's era (Schultz 1961). The first of these papers was “Investment in Human Capital”. Schultz published related monographs and formed the human capital theory research system, which is the beginning of human capital theory.

Theodore Schultz presents five main aspects of his argument on human capital. First, Schultz explicitly argues that labour is not undifferentiated and sees labour and human capital as heterogeneous. Schultz suggested that labourers having roughly equal productive capacities was an incorrect assumption in classical economics, and its errors are even more evident (Schultz 1961, p.4).

Secondly, Schultz categorises human capital into quantitative and qualitative aspects. Quantitative aspects refer to the number, percentage, and hours of practical work in a society, representing the extent of human capital. Qualitative elements, on the other hand, include human skills, knowledge, proficiency, and other similar attributes that can affect a person's ability to perform productive work (Schultz 1982). The level of education significantly influences the quality of human capital.

Thirdly, Schultz views human capital as a product of investment. In the book *Investing in Human Capital—The Role of Education and Research*, Schultz examines two main areas of human capital investment: formal education and organised research activities. Schultz argues that research is becoming increasingly recognised as an organised economic activity crucial for the dynamic growth of modern economies (Schultz 1971).

Fourthly, Schultz discusses the accumulation of human capital as a source of socio-economic growth, contrasting with the indifference to human capital seen in

classical economics. Schultz believed there is a correlation between the rate of return on investment in human and physical capital. The rate of return largely determines the relative amount of investment in human and physical capital. A high rate of return suggests that investment is insufficient and additional investment is needed; a low rate of return suggests overinvestment and a need for reduction. Additionally, Schultz emphasises the crucial role of education in production. Schultz posits that modern economic development can no longer rely solely on natural resources and physical labour; instead, production must elevate the intellectual level of manual workers. The advancement of education and the increase in mental labour will supplant many traditional factors of production (Schultz and Asia, 1970).

Fifth, Schultz highlights the role of education in promoting social equity. According to his theory, education is a pivotal factor in balancing the social distribution of individual income. Through education, individuals can enhance their knowledge and skills, boost their productivity, and ultimately achieve personal income growth. This process not only leads to changes in the structure of individual wages and salaries but may also promote social equity.

Schultz fully acknowledged the importance of education in human capital, but the theory lacks consideration of the differences in the nature of various educational resources. This makes Schultz's classification of educational attainment overly simplistic and lacking further refinement. As the duration of education increases, especially at the higher education level, these differences should receive more attention. This also implies that in research on promotion, the distinction in employees' educational backgrounds should be considered in greater detail.

This study explores and tests whether education can genuinely serve as a tool for promoting social equity during the reform and transformation of Chinese state-owned enterprises and how education can enhance employees' social status and income levels. This research engages with Schultz's theory and provides new perspectives for

understanding the role of education in the socio-economic development of contemporary China. Schultz recognised and explored the impact of human differences in social production, which began modern human capital theory. Schultz recognised the importance of education as an essential way of investing in human capital in terms of individual income and the development of social production. As soon as the human capital theory was born, it revolved around the factor of education, which shows the strong connection between this factor and human capital. Similarly, although Mincer did not conceptualise and systematise human capital in the same way as Schultz, Mincer revealed the existence of human capital in terms of individual income inequality. Mincer (1958) developed an economic model of access to training and personal incomes, and Mincer found a general phenomenon that the longer the years of training, the higher the individual's income. Mincer also discussed a similar phenomenon in the book *Schooling, Experience, and Earnings*, where Mincer estimated the total investment in on-the-job training in the United States and the rate of return gained on this investment using a modelling approach (Mincer 1974). The findings obtained by Mincer are important conclusions in labour economics.

Gary Becker (1962) is also regarded as a landmark figure in human capital theory; unlike Schultz, who favoured macro theory, Becker's research on human capital favoured the micro direction. In 1962, Becker published *Investment in Human Capital: A Theoretical Analysis*, establishing a pioneering analytical framework for the micro-decision theory of human capital recognised and developed by subsequent researchers. Theoretical Analysis established the analytical framework of human capital micro-decision-making theory; this research framework is groundbreaking and has been followed by the recognition and development of researchers. James Heckman (2015), also a Nobel Laureate in Economics, has praised Belk in an article honouring Becker, stating that “Becker improved economics by broadening the questions economists study and by innovating the research framework.” (Heckman 2015).

In *Investment in Human Capital: a Theoretical Analysis*, Becker chooses on-the-job training as his vehicle for building a theory of investment in human capital. Becker's analysis of on-the-job training is based on the market theory of perfect competition. Becker's analysis constructs the behavioural logic of investment in on-the-job training to pursue self-interest maximisation by manufacturers, workers, and other actors in perfectly competitive labour and product markets. In a perfectly competitive labour market, equilibrium is conditional on wages equal to marginal labour productivity. Becker divides the cost of on-the-job training into the direct cost of training and the opportunity cost of the time workers spend on training. The opportunity cost arises because the workers' participation in training inevitably reduces their working time, thus decreasing their marginal output. On the other hand, the benefits of on-the-job training for workers are reflected in the increase in labour productivity in each production period after training, which leads to a rise in marginal output. Market equilibrium is conditional on the discounted value of costs and benefits being equal across periods. Becker's analytical framework is rational and sound and finds a reasonable means of quantifying human capital theory in microanalysis. Moreover, Becker studied income, investment, cost, and rate of return on human capital, another vital contribution to human capital theory. Calculating the rate of return on human capital is very difficult because investment in human capital has a long duration, and sometimes, the period of investment changes. In contrast, the investment in human capital is often presented as net income mixed with income and costs. Becker established the concept of net income from human capital. Becker used the internal rate of return (IRR) method to obtain the rate of return on human capital investment by using data on net income streams to calculate a discount rate equal to the present value of net income under the assumption that the cost of human capital investment is dominated by opportunity cost. Becker's study explains the impact of education and training on individual income curves well,

and Becker uses a more modelling approach, making human capital theory more rational and complete in micro-level analysis.

Schultz and Becker argue that education, as a form of human capital, can significantly enhance an individual's economic potential. Similarly, in China's state-owned enterprises, employees' educational backgrounds are often regarded as part of the organisation's human capital. Many companies even showcase the average educational level of their workforce as a reflection of their human resource quality. As the most important and common form of human capital, an employee's level of education is considered a key resource for value creation.

Compared to market-oriented American enterprises, Chinese state-owned enterprises tend to quantify employees' educational qualifications. This tendency aligns with China's longstanding emphasis on examination systems and strict school ranking, which make the value of educational qualifications more stratified and distinct. For state-owned enterprise employees, especially those in senior management positions, educational qualifications represent not only individual capability but also a symbol of organisational trust and status. Within this cultural context, the human capital represented by educational qualifications becomes more readily quantifiable, facilitating greater value extraction and utilisation by the enterprise.

Human capital theory was further developed after Schultz and Becker, where the endogenous economic growth theory is known as the second generation of human capital theory; the main contributors to this theory are Lucas and Romer. The starting point for growth theory came in 1956 with Solow's paper entitled '*Contributions to the Theory of Economic Growth*'; the core of this type of research is the use of models to analyse the contribution of the quantity of labour and capital factor inputs to economic growth (Solow 1956). Lucas and Romer's model not only incorporated and endogenised human capital, but also overcame the shortcomings of equilibrium economic growth being dependent on the growth rate of labour as an exogenous variable.

Lucas's 1988 article on the Mechanics of Economic Development is the most significant contribution to the development of human capital. Lucas (1988) conducted a study to explain the problems of world economic development that contradicted Solow's model of neoclassical growth when the world economic development did not show the trend of convergence predicted by Solow's model, and capital did not flow into developing countries but instead flowed more into developed countries. Moreover, the law of diminishing marginal returns to capital in the Solow model limited the possibility of sustainable economic growth in the long run. Based on these two shortcomings, Lucas addressed the above problems by incorporating human capital as an independent factor of production into the economic growth model and solved the problem. Lucas constructed two models: human capital accumulation through schooling and professional human capital accumulation through learning by doing. Lucas is concerned with the mechanism of human capital accumulation and why human capital does not show a trend of diminishing marginal returns like physical capital. For this reason, Lucas divides the effects of human capital into internal and external effects. Lucas argues that the internal impact of human capital, i.e. income growth through education and training, has the same diminishing marginal returns as physical capital. In contrast, the external effect, i.e. the increase in an individual's human capital, brings about an increase in the human capital of others, such as the diffusion of knowledge and cooperation, etc., and this effect of human capital, which is separate from the individual, can well explain the dynamics of economic development. Findings demonstrate the endogeneity of socio-economic development, i.e. internal factors such as human capital drive economic development.

Romer's study of endogenous economic growth modelling has likewise made a significant contribution (Romer 1986). Rommer's findings correlate human capital and technological progress, and Romer proposes the endogeneity of technological progress, which Romer argues is driven by the stock of human capital. Romer (1988) argues that

technological progress is at the heart of long-term economic development and relies on market incentives. The study also introduces that once created technology can be replicated indefinitely at a low cost. At the same time, it will be protected by patents and market incentives for technology. Moreover, the exclusivity of human capital means that one person's human capital cannot be shared with others. In Romer's model, human capital is at the heart of knowledge production, and knowledge and technology, being detached from human life and non-competitive, non-exclusive or partially exclusive, has no upper limit to its growth and its marginal returns are increasing. The externalities of human capital are similarly explained by Romer, who, together with Lucas's research, has advanced the contribution of human capital theory to the study of economic growth.

Similar studies have yielded many valuable conclusions about how education and training affect individual income and social production. Card (1999) examines the correlation between education and personal income in more detail and concludes that workers' earnings can increase by 6 to 15 percent for each additional year of education. Higher years of education lead to higher salaries apparently because higher levels of education increase the labour productivity of employees, and Chansarn (2010) finds that education is a determinant of labour productivity growth, with a 1% increase in labour productivity for each additional year of education on average. (Chansarn 2010) Chinese scholar Cai Fang (2009) and his team, who based their model on the Chinese situation, predicted that if firms' workforce were composed entirely of workers with less than a junior high school education to all high school-educated workers, firms' labour productivity would increase by 24% and that if it were further improved to all college-educated workers, the firms' labour productivity would increase by a further 75%. If it is further enhanced to all college degrees, the labour productivity of the enterprise can be increased by 75%. The accumulation of human capital brought about by education significantly affects both the improvement of personal income and the development of social production.

Naro and Autor, have also extensively discussed the relationship between education and human capital. Naro et al. (2019) argue that knowledge can be acquired through education, that the level of education can reflect a person's ability, and that the higher the level of education, the higher the cognitive level of the person, and the higher the ability to learn. Scholars such as Autor (1998) and Acemoglu (1998) have also suggested that as society continues to develop, the demand for highly skilled people due to technological advances reflects the value of educational attainment. The value of educational attainment is reflected in the demand for highly skilled people as society continues to develop.

Several Chinese scholars have also further analysed and developed human capital theory. Zhou (1997) argues that human capital can be divided into two levels, primary and advanced, and two stages of change, stock and incremental (Zhou 1997) . Zhou summarises low-level human capital as healthy people's physical strength, experience, production knowledge and skills. Zhou regards human wisdom as high-level human capital, and his understanding of it is similar to that of Lucas, who argues that high-level human capital, i.e., the wisdom that a person can uncover, can realise its capital value independently of physical dependence. Similarly, Ding and Liu (1999) proposed that human capital should be able to increase marginal returns as heterogeneous capital. They suggested that no one would be willing to continuously invest in a capital with diminishing marginal returns, and therefore, human capital with increasing marginal returns has the value of long-term investment. They suggest a cyclical change in heterogeneous human capital, which initially has increasing marginal returns. Still, over time and as society progresses, it becomes homogenised and becomes human capital with diminishing marginal returns.

After the human capital theory took shape, the research and application of human capital theory became very common in China. According to Liu (1997), China's human capital investment mainly consisted of education, health care and labour retraining

expenditures. Liu's empirical research showed that these expenditures contributed to the development of China's national economy at that time. Still, at the same time, Liu also found that there was the phenomenon of “brain power hanging,” i.e., the income of the high-knowledge group and scientific research workers was lower than that of the low-skilled workers. However, Liu's research also found that there was a phenomenon of “brain power hanging” at that time, that is, the income of high-knowledge people and scientific research workers was lower than the income of low-skilled labourers, which indicated that China's human capital had not been well used for a period of time after the reform and opening up. China's human capital situation in recent years is different from that of the last century. Wen and Xiang (2023) find empirically that the enhancement of human capital can effectively improve the structure of income distribution and achieve a reduction in the income gap between urban and rural areas, a process that is likely to be achieved by human capital by facilitating the movement of highly skilled rural labour into the cities. Their conclusions also corroborate Schultz's argument. Zheng (2022) finds that human capital structure also has an impact on environmental pollution. Zheng found that there are cyclical changes in the factor endowment structure, i.e., the ratio of capital to labour, during the development cycle, and that when the factor endowment structure reaches the optimum, the deviation of the human capital structure will lead to the increase of environmental pollution.

Similarly, human capital theory is controversial and is often criticised. For example, Marginson (2019) argues that human capital theory makes a simple causal connection between two heterogeneous domains, educational background and work, without providing a plausible explanation of how education increases productivity. Chiswick and Miller (2009) find that human capital does not transfer well internationally and that new immigrants need to realise the mutual substitution of educational attainment and experience. Yuan (2022) points out from the perspective of Marxian political economy that the theory of human capital cannot eliminate the subordination of labour to capital,

and establishing such capital is an illusion. Human capital theory has some explanatory power in studying human resources and labour. Still, this explanation is not accessible from the deviation from reality arising from oversimplifying the situation. Yuan's perspective helps consider the feasibility of defining human capital from the fundamental relationship between capital and labour. However, it is overly critical to completely deny the independence of human capital based solely on the subordinate relationship between labour and capital. Human capital has an endogenous growth mechanism and can exist independently of capital. Research on human capital is generally quantifiable and feasible.

Human resource theories offer a crucial perspective in analysing the promotion mechanisms within state-owned enterprises, particularly in highlighting the importance of employees' skills, educational backgrounds, and training for career advancement. By focusing on the investment in human capital, these theories reveal potential pathways for enhancing employees' competencies and fostering internal promotions. However, these theories also display certain limitations when applied to the specific context of state-owned enterprises. While human resource management practices can explain some variables in the promotion process to an extent, these theories need to adequately consider how the unique social factors of state-owned enterprises influence promotion decisions. For instance, the impact of social networks plays an undeniable role in the promotion mechanisms of state-owned enterprises, a factor often marginalised within the traditional frameworks of human resource theories. Therefore, although human resource theories provide a foundation for understanding promotion mechanisms, the unique environment of state-owned enterprises necessitates further theoretical innovation and empirical research to deepen our comprehension of the complexities in their promotion mechanisms.

2.1.2 Social Capital Theory

The French scholar Pierre Bourdieu was the first to present a systematic account of social capital. Bourdieu classified capital into three forms, namely economic capital, cultural capital and social capital, in which social capital is defined as a collection of actual or potential resources that depends on a network of relationships with people who have a more or less institutionalised familiar acquaintance and recognition (Bourdieu 1985) more or less institutionalised networks of common acquaintance and recognition, in *The Forms of Capital*, Bourdieu mentions that social capital comes from “social networks”. Bourdieu defines social capital as the support that members of a collective have that can be obtained from the collective, which is formed by institutionalised networks of familiarity and recognition that provide a 'certificate of trust' between members. Bourdieu (1985) emphasises that such collectives are not natural but are the result of an institutionalised process of joint investment by members, and that this institutionalised collective is the source of the benefits generated by social capital. Bourdieu's measurement of social capital is based on two main aspects: the social relations themselves and the quantity and quality of social relations, which determine the returns to social capital.

Bourdieu posits the origin of social capital from a class perspective as the result of identity investment by ruling class members. Bourdieu argues that the ruling class invests in membership and forms social capital in mutual recognition and acknowledgement to maintain and regenerate group solidarity and to keep the dominance of the group, which makes social capital not only bring benefits to the individual but also maintain the supremacy of the ruling class, and at the same time. Bourdieu argues that investing in social relations aims to transform self and intrinsically special interests into supra-utilitarian, collective, communal and legitimate interests. Bourdieu measures social capital in two parts: the quantity and quality of social relations. Bourdieu tends to measure social capital by transforming it into economic

capital, even though it is not reducible to financial or cultural capital. Also, because of its mode of production, social capital cannot exist independently of other capitals.

Bourdieu, as a pioneer, defined and discussed social capital clearly, making the concept concrete. However, Bourdieu's theory has some limitations. Zhang (2003) argues that Bourdieu would be obsessed with reducing (reducing) other capital to economic capital, which ignores the uniqueness of different forms of capital than economic capital. Zhou (2003) argues that Bourdieu would be obsessed with reducing other capital to economic capital. Zhou (2003) argues that Bourdieu attempts to explain the reproduction of class relations by using social capital as the centre of the three types of capital Bourdieu categorises. However, this generalisation of social capital is still incomplete. It is easy to find that Bourdieu's account of social capital favours the Marxian view of capital theory, and Bourdieu understands the role of social capital as the capital of the collective more in terms of privilege. After Bourdieu, two eminent scholars made detailed additions to the theory of social capital, namely Coleman and Brown.

Coleman (1988), an American scholar, further refined the social capital theory. Coleman defines social capital in functional terms from the perspective of outcomes: “It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors-whether persons or corporate actors-within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible” (Coleman n.d.). Coleman's definition emphasises the fact that social capital is socially structured and is a public good; it is productive. Coleman argues that social capital “consists entirely of some aspect of the social structure” and “facilitates certain actions of individuals within that structure.” Coleman argues that social capital exists within the social structure, and thus its production is not dependent on independent individuals, nor does it exist in the

production of physical capital. Coleman emphasises the collective attributes of social capital, which Coleman sees not as a single entity but as a collection of multiple entities, all of which are related to some aspect of the social structure and facilitate the actions of the actors (whether individual or collective) who are within that structure. Coleman argues that, in distinction to the individual attributes of physical and human capital, only those who invest in them receive an increase in physical and human capital. Once social capital is created, it benefits all individuals within the relevant social structure. Thus, Coleman's definition of social capital contains two core features: “originating in a social structure” and “facilitating specific actions by individuals within that structure”. The productive nature of social capital derives from Coleman's functionalist perspective, which sees social capital as necessarily productive of some outcome, a definition derived from outcomes. Coleman recognises the relevance of social capital to educational resources and argues that social and human capital are often complementary.

Coleman outlines the manifestations of social capital as obligations and expectations, information networks, norms and effective punishments, and authority relations, where the degree of trustworthiness of the social environment, i.e., whether the obligations due are honoured and the extent to which the individual fulfils them, is critical to the fulfilment of obligations and expectations. Trust is an essential topic in Coleman's discussion of social capital. Coleman's discussion of social structure primarily recognises the rational choice theory of social context. Coleman campaigns to mitigate the under-socialised nature of the rational choice approach by explaining how social structure shapes and constrains rational behaviour and by explaining the reasons why social structure influences individuals to maximise their self-interests (Brown and Wood 2000, p. 42). Coleman discusses social structure primarily to explain the impact of relationships between people on their rational behaviour. Coleman suggests that the source of trust is a central issue in the theory of rationality because trust contradicts the

sensible choice of maximising an individual's choice of interests, and Coleman argues that the social structural context can influence the level of trust. Coleman claims that if someone has more obligations and expectations within the social structure, regardless of the resources involved in such obligations, that person has more social capital available to them. Rational actors make others obligate them to them because they can gain some benefit over and above the obligation. Moreover, Coleman argues that social capital has a unique role in transmitting information and that using pre-existing social relationships to obtain information is important in providing a basis for action, especially in obtaining certain internal information that is not easily accessible through public channels. Coleman argues that within collectives, imperative norms, which require collective members to abandon their self-interest and act in the collective interest, are also fundamental as social capital and that this social structure guides and constrains the behaviour of collective members, which will become social capital. Coleman also considers authority relations as social capital, which Coleman sees as the social capital created when people are aware of the need to solve a commonality problem by conferring authority on an agent.

Coleman's research is important to developing social capital theory, but Coleman's theory faces more controversy. Firstly, the definition of social capital has attracted criticism. Brown (1999) argues that his definition of social capital in terms of function is "an oversimplified and conceptually deficient formulation" that confuses the antecedent with the consequent and misleads many recipients of the theory into believing that social capital necessarily has productive outcomes. Portes (1998) criticises his definition of social capital as a 'rather vague definition', which has led subsequent researchers to add contradictory elements to the study of social capital. Tian (2001) suggests that Coleman needs clarification about the subject matter of social capital, defining it as capital owned by individuals and characterised by social structures. However, Tian also describes society, the state, and organisations as subjects of social

capital. Meanwhile, Portes (1998) notes Coleman's lack of awareness of the adverse effects of social capital, stating that “the fact that people only notice the positive effects of community participation and do not consider the possible negative implications” is because Coleman's discourse describes social capital as a pure blessing.

Another American scholar, Putnam (1995), similarly refined the social capital theory. Extending the theory of social capital to the study of democratic governance and citizenship, Putnam defines social capital as “features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions” (Putnam et al. 1993). Putnam thinks that social capital raises the return on investment in physical and human capital. Much of his conceptualisation of social capital was inherited from Coleman. Putnam added these concepts to enhance the explanatory validity of his study of the differences in government performance between northern and southern Italy. Putnam found that parts of Italy differed in their political structures and the grids and norms of civic activity, with some regions having vibrant civic life and others having loose and insular political structures that lacked a social culture of mutual trust, and Putnam thus found that social capital played a key role in explaining the institutional differences. Putnam essentially equated social capital with the civic spirit of the communities within a region, and Putnam quantifies social capital primarily by counting the level of participation and involvement of people in the community in associations, measuring such things as newspaper reading, involvement in voluntary organisations, and expressions of trust in political authority. In his study of social capital in the United States, Putnam used factors such as participation in voting, parent-teacher associations, the League of Women Voters, the Red Cross, labour unions, religious groups, mutual aid, and the activities of hobby clubs as indicators reflecting social capital. Putnam concluded that U.S. social capital declined precipitously in the 1960s-90s (Putnam 2000).

Putnam believes that social networks and social norms are essential to social cooperation. Putnam argues that trust enhances the efficiency of social cooperation and that a society that relies on universal reciprocity is more efficient than one without trust, just as the use of money is more efficient than barter. Putnam found that stocks of social capital such as trust, practices, and social networks are self-reinforcing and cumulative, e.g., social networks of civic engagement breed strong norms of general communication, which foster the production of social trust, which ultimately facilitates the coordination and communication of social networks and can resolve collective action dilemmas. Putnam argues that civic social organisations such as trade unions, churches, and community groups are essential in producing social capital. Putnam argues that social capital has significant consequences for democracy, as social democracy helps to promote social capital by facilitating the creation of a close, rich and vibrant social base, which in turn enables the production of social capital. Social democracy contributes to promoting social capital, which generates social networks and cultural norms that can be used to promote civic and political participation. This follows from Putnam's analysis of regional governments in Italy, where Putnam found a correlation between community organisations' density and civil society's flourishing. Putnam argues that in democracies with sufficient social capital, vigilant citizens are more likely to hold elected leaders accountable to them.

Putnam has made essential contributions to expanding and applying social capital theory, but his doctrine has been largely criticised. Putnam's overly optimistic perception of social capital was similarly disagreed with by Portes, who suggested that social capital has negative consequences (Portes 1998). Portes also found that Putnam's definition of social capital, like Coleman's, suffers from the problem of circularity, with social capital being both a cause and a consequence of forming a community. Putnam's conclusion of a decline in social capital in the United States has attracted much criticism and controversy. Skocpol argues that Putnam blames the elites who voluntarily

disengaged from the social organisation of a region after achieving success on the decline in popular participation in social organisations, which is absurd.

Among subsequent scholars, Lin (1999) has made an important contribution to the summary and development of social capital theory, where Lin summarises and refines the ideas of his predecessors and proposes new ideas that are developmental in nature. Lin summarises and refines the ideas of his predecessors and puts forward new ideas that are developmental. Lin views social capital as “investment and use of embedded resources in social relations for expected returns” (Lin 1999, p.30), which is similar to the formulation of several others. Lin proposes a theory of social resources, which Lin defines as “resources embedded in a social structure that are accessed and mobilized in purposive actions ” (Lin 1999, p.30). Lin divides the concept of social capital into three components: resources embedded in a social structure, the ability of individuals to access these social resources, and the use or mobilisation of these social resources through individuals in purposeful action, i.e. structural, opportunistic and action-oriented.

Lin summarises the functions of social capital in four ways: firstly, social relationships can facilitate the flow of information, as demonstrated by the fact that in markets, especially imperfect markets, relationships in strategic or hierarchical positions, because of their better understanding of market needs, can provide individuals with useful information about opportunities and choices that would not be readily available to them in other ways. Similar relationships alert relevant organisations or agents in production or consumption markets to the availability and interests of individuals who are otherwise unaware. This information has the function of reducing transaction costs, enabling to help organisations to find suitable members, as well as helping individuals to find organisations that can use their capital and provide appropriate returns. Secondly, social relations can influence agents (e.g., recruiters or managers of organisations) who play a key role in decisions about actors (e.g., hiring or promotion). Due to their

strategic location (e.g. structural holes) and status (e.g. authority or supervisory capacity), certain social relations have a significant influence on the decision-making of organisational agents, and social ties demonstrate clear value in this process. Third, social capital can provide support for trust. Organisations and their agents also see social relational resources and their identified relationship with the person as evidence of the person's social trust. Particular trust reflects an individual's ability to wade through social networks and relationships, i.e., resources through social capital. The identity behind the individual provides reassurance to the organisation and its agents through these relationships - the individual can provide resources beyond the personal capital possessed by the individual that is also useful to the organisation. Fourth, social relationships are expected to reinforce identity and recognition. The values that a person is identified and recognised as similar benefits and resources shared by the individual and members of the social group provide emotional support and public recognition of specific resources. These reinforcements are essential to maintaining mental health and ownership of resources.

Lin believes that the theoretical model of social capital should include three processes: the investment of social capital, the involvement and mobilisation of social capital, and the return of social capital. Lin divides social action into instrumental action, i.e. behaviour to acquire resources not owned by the actor, and affective action, i.e. behaviour to maintain resources already owned by the actor, into instrumental action, i.e. behaviour to acquire resources not owned by the actor, and affective action, i.e. behaviour to maintain resources already owned by the actor. For instrumental action, Lin categorises the rewards gained into three types, namely economic, political and social rewards. Each type of return can be viewed as increased capital. Economic and political returns are usually direct, and social returns result, usually in the form of prestige. For affective actions, social capital is a tool to consolidate resources and prevent possible loss of resources.

Other scholars have distinguished between social capital analysis levels, such as micro, meso and macro levels, as represented by Brown (1999). According to him, social capital analysis at the micro level is an embedded self-perspective, where social capital theory focuses on the potential of the individual self to mobilise resources through social networks that include the self. The meso level of social capital analysis is the structural view. At this level, social capital theory examines the structuring of a particular social network, the status of connections between selves in the social network, and how resources are formed from that network as a result of its particular structure. The macro level of social capital analysis is the embedded structure perspective, and social capital theory at this level is concerned with how the networks that form, justify, and unfold social capital are embedded within larger political-economic systems or systems of culture and norms. Brown's study refines the hierarchical distinction of social capital, which can lead subsequent scholars to a more three-dimensional understanding of social capital.

The framework of social capital theory has matured through the refinement of scholars from Bourdieu to Lin and has been criticised for its development and application. Claridge (2018) argues that the concepts of social capital theory are complex and unclear, that the theory is overly vague, and that the definitions are not clear. (Claridge 2018) Sabatini (2017) points out that social capital theories use too much data from indirect indicators of different dimensions, which can be confusing and misleading in concluding. Fine (2001) argues that the context on which social capital is based is itself variable rather than deterministic. Hence, any conclusions about social capital are inappropriate, and these conclusions cannot be used as generalisations about other situations. Such criticisms likewise refine the scope of the study and application of social capital.

From the study of social capital theory, it can be learnt that educational attainment, i.e. educational background, is a natural social capital factor. Firstly, educational

background is not just a period of study; it is also an essential process of building and forming one's social network, a process that is full of interpersonal interactions and information exchange, and the university, or research institution, a social structure that confines students to a limited amount of time and space to socialise, can provide ample opportunities for individuals to invest in their social networks. Secondly, every day or similar educational experiences also imply the existence of potentially shared norms and codes of behaviour among individuals, and this potential consensus facilitates mutual recognition among individuals. Moreover, educational attainment also provides individuals with more trust than the capital they possess can generate, which is the actual social return that educational attainment can generate, obviously from the production of social capital.

In state-owned enterprises, the social capital advantage that employees with high education levels have after joining the company may, on the one hand, be manifested in the superiority of human connections through the overlapping of social networks and, on the other hand, in recognition of high education level by the whole society, which is manifested in the fact that they gained more trust from the beginning, and thus they may have more chances to take part in decision-making affairs within the enterprise, and this will also build up a more comprehensive social network for the individual, thus achieve self-reinforcement of social capital and accumulate more social capital for the individual. Based on the framework of social capital theory, the role played by educational attainment in the promotion of employees in state-owned enterprises can be better understood.

Social capital theory, with its roots in the works of scholars like Bourdieu and Coleman, suggests that social networks have the power to influence individual behaviour and opportunities. It posits that the relationships and networks individuals form serve as valuable resources that can be leveraged for various benefits, ranging from job opportunities to personal development. Over the years, this theory has been

expanded and applied across numerous fields, including organizational behaviour, sociology, and economics, highlighting its versatility and the broad interest in understanding how social structures impact individual and collective outcomes. Empirical research on social capital has demonstrated its significant impact on job mobility, especially within complex organisational structures such as state-owned enterprises (SOEs). Studies have shown that individuals with rich social networks and strong relationships within their professional field tend to have better access to information, opportunities, and resources, facilitating their career advancement and social status attainment. This body of research underscores the importance of social connections in navigating the professional landscape, particularly in environments where formal structures and processes may not be the sole determinants of career progression.

While the theory of social capital has been widely used in related fields and has provided essential perspectives and insights for sociological research, it has also been subject to some criticisms. A major criticism is that the existence of social capital perpetuates inequality, as those who have established networks will continue to benefit, a situation that will further widen the gap between different social groups. In addition, the emphasis on social connections may overshadow the importance of individual competence and performance, which often means that nepotism and favouritism will prevail within the organisation. The role of social capital is evident in career mobility and the acquisition of social status, which means that an assessment of the mechanisms for the accumulation and utilisation of social capital is necessary, taking into account the possible negative impacts, which are important for the fairness and meritocracy of promotion opportunities.

This brings us to the relevance of social capital theory to the present study, which focuses on job mobility within SOEs during China's reform and transformation period. The research explores not only the traditional metrics of career advancement, such as

education and performance but also the nuanced role of social connections and networks. By doing so, it seeks to provide a comprehensive understanding of the multifaceted factors influencing employee promotion and the attainment of social status within the context of SOEs, thereby offering insights into the mechanisms of social mobility in a transitioning economy. Future research on social capital and job mobility within SOEs and similar organisations must consider the dynamic interplay between social networks and formal institutional structures. Investigating how social capital can be harnessed to foster individual success, organisational efficiency, and fairness is essential. Furthermore, understanding the potential downsides of overreliance on social networks for career advancement is crucial for developing more inclusive and meritocratic promotion and reward systems.

2.1.3 Theories of social status attainment

The theory of social status acquisition developed in the mid-twentieth century as researchers focused more on the links between family background, education, and occupational attainment. It became clear that society is class-differentiated, prompting interest in the characteristic paths for acquiring and transmitting class status. This area of study is central to social status acquisition theory. Pioneering this research, Duncan and Blau (1967) examined the transmission of social status in the United States. They discovered that while family background significantly influences men's career development, acquired education plays an even more significant role in personal advancement.

Expanding on these findings, they argued that industrialisation impacts social status mobility. In more industrialized societies, an individual's social status is less influenced by the innate factor of family background and more by their acquired efforts. This shift highlighted that other factors besides family and educational background could influence social mobility. However, since the study by Blau and Duncan focused only

on male U.S. citizens in the 1950s, it did not consider gender differences in status attainment, reflecting the period's oversight of women's social status.

Subsequent studies addressed this gap. For instance, Treiman and Terrell (1975) observed that although women in the U.S. accessed similar levels of education and occupational status as men, they did not earn comparable incomes. This discrepancy has been confirmed by multiple studies, and several theories have been proposed to explain it. Traditional views like those of Becker (1957) suggest that such differential treatment results from discrimination based on personal prejudice or a “taste” for avoiding association with certain groups. Becker speculated that employers perceive non-pecuniary costs in employing women in roles deemed socially inappropriate, leading to lower wages for women than men.

Additionally, explanations based on social networks have been explored. Granovetter (1974) and Corcoran (1980) found that personal contacts significantly influence job search success, with men typically leveraging these contacts more effectively than women. Furthermore, Aigner and Cain (1977) argued that discrimination is not merely a result of personal bias but is based on statistical expectations. They suggested that employers assume women as less productive or less stable than men, influencing hiring and promotion decisions favouring male employees due to perceived productivity and job stability advantages.

In a country of immigrant composition, such as the United States, ethnicity is difficult to ignore when conducting social research. Unsurprisingly, there are differences in the acquisition of social status across ethnic groups. In recent studies, such as Chetty et al. (2020), who found that race has a significant effect on social status acquisition, they found that Blacks and Indians have significantly lower rates of upward and downward mobility than Whites, while Hispanics' intergenerational mobility is not significantly different from Whites'. There are various explanations for this phenomenon; Bonacich (1972) argues that there is an ethnic segmentation of the labour

market, which stems from the cost of the worker, not only wages but also costs of transportation, housing and health care, which are racially differentiated, e.g., black employees are transported by public buses, while whites are transported by private cars, which directly contributes to the cost of hiring. Wilson (1987) argues that the relocation of heavy industry to the suburbs took away much of the middle- and upper-income classes, which created ghetto-like enclaves for the lower classes of inner-city black communities, and that these enclave interactions prevented their upward mobility. While these arguments go some way to explaining the development of racial income inequality over the last century, the situation is very different in the United States today, and it is clear that this inequality has not been effectively mitigated over time, which has led to continued differences in social mobility across racial groups in the United States today.

Blau and Duncan, in their book 'The Structure of American Occupation', outline two main elements that contribute to an individual's acquisition of social status: predisposing factors and causative factors. They identify predisposing factors as the occupational status and education of one's father and causative factors as the individual's own level of education and occupational status. They suggest that the impact of these causal factors on individual status acquisition is closely linked to the overall equity of society and that their influence may vary over time.

Duncan and Blau's research explored the impact of family background and education on social mobility in the United States, finding that education plays a significant role in facilitating social mobility. Similarly, China's state-owned enterprises have historically encountered the challenge of "familial job inheritance." For a considerable period, recruitment within many state-owned enterprises primarily targeted children of workers, allowing them to enter the workforce unconditionally, thereby creating a generational "worker identity inheritance" system. However, with multiple

rounds of reform in China's state-owned enterprises, this system has gradually been dismantled.

In modern state-owned enterprises, although family background may still exert some influence, educational qualifications have become a central criterion for both recruitment and promotion. High levels of education, especially from prestigious institutions, have increasingly provided a competitive edge in hiring and career advancement. This shift has made educational qualifications a vital tool for countering inherited job identities and promoting social mobility, which in turn positively impacts social equity. Moreover, the role of educational qualifications in state-owned enterprises extends beyond entry-level requirements, progressively permeating the promotion process. Educational backgrounds from top institutions have gained growing prominence in career progression, reflecting China's cultural characteristics. In this context, education is not only a measure of individual ability but also gradually replaces family ties as a new form of social capital within state-owned enterprises.

Within this framework, the role of educational background in China's state-owned enterprises has become more complex and multi-faceted. On one hand, educational qualifications provide a foundation for trust and recognition within organisations, helping employees overcome familial constraints and achieve self-development through personal abilities and academic accomplishments. On the other hand, the stratification of educational levels fosters an implicit standard, where high-level qualifications from prestigious institutions have become an "invisible criterion" for career advancement, creating an unspoken hierarchy based on educational background. This confers upon educational qualifications a heightened status as social capital, while also supporting a fairer promotion mechanism within state-owned enterprises. As a key factor influencing social status, educational qualifications are gradually transforming pathways to social standing in China, thereby shaping new routes for social mobility.

In China, the Qing government's abolition of the imperial examination system in 1905 disrupted the traditional talent selection mechanism. After the Qing dynasty, prolonged periods of war further destabilised the talent selection process. However, during these turbulent times, the acquisition of social status within the scholarly community was influenced by a unique “scholarly affinity”. Wang and Gao (2023a) explored the social relationships among cultural elites during the Republic of China (ROC) period. They found that sociologists of that era formed their social connections within the relatively isolated academic arena. These relationships, which were crucial for securing university teaching positions, research projects, funding, official roles, and political alignments, were primarily built on what they termed as social capital within academic networks.

Academic ties, as described by Wang (2021), encompass various social relationships such as teacher-student, classmate, and alumni connections that emerge from the sharing and dissemination of academic ideas within a typical academic or educational organization. These connections often originated from predisposing factors, particularly the social networks of the sociologists' grandparents and fathers, according to further research by Wang and Gao (2023b). These cultural elites typically hailed from families of former bureaucratic candidates from the Qing era, who were accustomed to the imperial examination system.

They summarised three ways inherent social capital during the Republic of China (ROC) period facilitated access to quality educational resources, thereby influencing social status acquisition. These included multiple economic strategies to cover schooling costs, access to high-quality cultural resources, and control over information and channels essential for education. Consequently, despite frequent wars, financial crises, and an elitist education system, the cultural elites of the ROC were able to secure social status more easily.

In the new China period, the paths to social status differed due to the vast differences in social systems before and after the Reform and Opening-up period. Parish (1984) investigated Chinese residents who migrated from the mainland to Hong Kong during the Cultural Revolution and found that this period eliminated the effect of parents' social class on children's educational level and career development. Lin and Bian (2002) surveyed in Beijing and other locations, reaching the same conclusion.

The cancellation of the college entrance examination system during the Cultural Revolution blocked the traditional path of obtaining educational attainment through examinations. After the reform and opening up, the restoration of the college entrance examination system better reflected education's role in acquiring individual social status. Empirical findings by Zhang (2004) indicated that the level of education influenced the acquisition of social status in China post-reform.

Dong (2016) tested the situation in China using the Mincer equation and the “Blau-Duncan” model, finding that the quantity and quality of education, work experience, father's education level, and father's social status at the age of 14 had a positive effect on income. Dong noted that the impact of self-induced factors on income was more significant than that of predisposing factors. Further reinforcing this perspective, Huang and Shen (2022) found that personal educational history significantly drives the production and reproduction of social status.

These results suggest that for a considerable period after the reform and opening up, the flow of social status has been more equitable, with an individual's acquired efforts, especially the level of education, having a greater impact on their acquisition of social status than predisposing factors. However, the influence of education on status acquisition may not be independent of the family; Li (2006) found that in the early years of China's reform and opening up, family educational background created inequality in individuals' right to education, while after 1992, the factor affecting the level of education changed to the family's class background.

The influence of predisposing factors on the acquisition of social status has also been studied; Yu and Fang's (2023) research found that differences in paternal housing had a significant effect on youths' initial job acquisition. Compared to rural-owned housing, paternal ownership of urban commercial housing significantly increased the initial job acquisition of the offspring, and the higher the father's housing equity (classified in terms of housing stratum), the higher the offspring's initial job status was. These results suggest that, for a considerable period after the reform and opening up, the flow of social status has been more equitable, with an individual's acquired efforts, especially the level of education, having a greater impact on their acquisition of social status than predisposing factors. However, the influence of education on status acquisition may not be independent of the family; Li (2006) found that in the early years of China's reform and opening up, family educational background created inequality in individuals' right to education, while after 1992, the influencing factor shifted to the family's class background.

These studies provide insights into the impact of educational background on employees' promotions. However, they need a unified standard for quantifying social status. In this research, the researcher will narrow the scope of social status measurement by using job rank as a simple and easily quantifiable indicator of social status. This will allow for a direct correlation analysis of the impact of education on the attainment of social status.

The influence of predisposing factors on the acquisition of social status has also been studied; for example, Yu and Fang's (2023) research found that differences in paternal housing had a significant effect on youths' initial job acquisition. Compared to rural-owned housing, paternal ownership of urban commercial housing significantly increased the initial job acquisition of the offspring, and the higher the father's housing equity (classified in terms of housing stratum), the higher the offspring's initial job status was.

It is noteworthy that the enhancement in social status and psychological satisfaction derived from job promotion is often of comparable importance to economic benefits, such as income growth. For instance, research by Georgellis et al. (2022), utilising British panel data, reveals that occupational status contributes significantly to employees' life satisfaction independently of remuneration, with the strength of this effect varying according to labour mobility and gender differences (Georgellis et al. 2022). In corroboration with this, Zhou et al. (2024)'s research, from the perspective of downward occupational mobility, revealed similar findings in a reverse-validation manner, demonstrating that this negative change in occupational status brings a sustained negative impact on job satisfaction (Zhou et al. 2024). This finding differs from the conventional view that regards social status as a derivative variable of income. Within the Chinese context, the distinctive bureaucratic hierarchy within state-owned enterprises (SOEs), akin to that of government agencies, may further amplify the role of status as an incentive; this phenomenon is also linked to the prevalent pay constraints within Chinese SOEs. Research by Li and Hu (2012) examining the differential incentive effects of internal pay disparities in SOEs found that such disparities offered limited motivational impact on executives, instead reflecting managerial entrenchment to some extent (Li and Hu 2012). This suggests that within the internal hierarchy of SOEs, the benefits associated with social status may take precedence over monetary rewards. Li and Shao (2017) further investigated the relationship between internal pay gaps and corporate innovation in SOEs, discovering that the innovation-promoting effect of pay dispersion was significantly weaker in firms led by executives with prior government experience (Li and Shao 2017). They inferred that, for such executives, potential incentives tied to administrative rank promotion partially substitute for monetary incentives. Wang and Ibrahim (2024) also note that SOE managers in China are appointed by the government and receive official perks commensurate with their administrative rank (Wang et al. 2024). This structure may lead them to prioritise

political objectives over economic gains. Similarly, Xu and Chen (2017), in their study on determinants of happiness in Chinese society, found that social status (measured by occupational categories in their research) had a greater impact on happiness than income (Xu and Chen 2017). Moreover, as income rises, the positive effect of social status on happiness was further enhanced. Notably, within their measurement framework, occupational status within the state sector (encompassing government agencies, public institutions, and SOEs) was consistently ranked highly.

The theory of social status attainment provides a direction for explaining the role of educational attainment in the career development of individuals. The achievement of social status free from the influence of family factors is regarded as a progressive feature of the industrialisation of society, and it is a fair way to gain social status through one's efforts. At the same time, the level of education is often an important factor in measuring the degree of one's efforts. With the development of State-owned enterprises and the improvement of the personnel system, a greater role for educational attainment in promotion should be an expected outcome.

2.1.4 Upper Echelons Theory

The human capital theory reveals the importance of some human characteristics as capital for production. In contrast, the upper echelon theory proposed by Hambrick and Mason (1984) suggests the influence of individualised characteristics of managers on their decision-making in a given situation, which relates to the impact that the traits possessed by an individual have on their chances of being promoted to the managerial level. Higher echelon theory suggests that due to the complexity of strategic decision-making and the limited rationality of the CEO, higher-ranking leaders make strategic choices based on their perceptions and values and therefore, the organisation becomes a reflection of their personal characteristics. Higher echelon theory incorporates the demographic characteristics of top management into the study and pioneers the method of analysing managerial behaviour based on personal traits. After

the upper echelons theory was proposed, scholars used it as a basis for more in-depth research. Jackson (1992) and Finkelstein and Hambrick (1996) summarise the results of the first ten years of upper echelons theory (Jackson 1992; Finkelstein and Hambrick 1996). Carpenter et al. (2004) provide an overview of two decades of research on higher-order theory and propose an analytical framework for modifying higher-order theory.

Through the study of managerial traits in higher-order theories, scholars have found that some traits of managers affect the behaviour of the firm, including the firm's performance outputs or strategic choices, etc. Dempster and Hart (2002) found that gender differences lead to managers' different perceptions of things and different ways of dealing with things. Compared to male managers, female managers are more willing to try new ways to solve problems. On the contrary, Tihanyi et al. (2000) argued that female managers are more conservative in their strategic decision-making. Educational background is an important demographic characteristic of top management teams, and its influence on management decision-making has been widely discussed. The educational background has a significant impact on managerial decision-making; Smith et al. (1994) found that managers' education is positively related to their performance by studying their educational background. Wiersema and Bantel (1992) found that the more educated managers are, the more adaptive and innovative they are, and the more likely they are to make corporate changes. Wiersema and Bantel (1992) found that managers with higher education were more adaptable and innovative and more likely to make corporate changes. Meanwhile Camelo-Ordaz et al. (2005) obtained the same conclusion in their study. In addition, Chen et al. (2009) found that managers' social resources have an impact on strategic choices and firm performance. The above studies show that managers' gender and social resources can have an impact on strategic choices and firm performance. The above studies show that factors such as gender, age, education and social resources of managers affect the fulfilment of their managerial

responsibilities. However, it is important to consider that the evaluation of decisions will significantly influence the outcomes of such theoretical studies, and the effects of these decisions may be difficult to assess effectively in the short term. Therefore, conducting correlation studies on more direct outcomes, such as promotions, in relation to demographic characteristics, like educational background, would provide more immediate and compelling evidence.

While the emergence of high-level echelon theory has opened up directions in the study of managerial behaviour, some scholars have criticised the theory. Priem (1999) argues that high-level echelon theory suffers from three main problems, namely: the reliability of the measurement is greater than the validity of the construct being measured, which allows the accessibility and relative accuracy of the data on the contextual variables to outweigh the importance of the true theoretical construct it proxies for, such as the substitution of team background heterogeneity as a proxy for cognitive heterogeneity, CEO tenure as a proxy for risk attitudes, and other alternative research approaches suffer from this problem; prediction over explanation, due to the fact that the causal chain between the contextual variable and the strategic outcome is too long, which increases the probability that the findings will be interpreted incorrectly; and description of the relationship over practical application, which, even if a significant relationship between the contextual variable and the strategic outcome is found, is of extremely limited significance for practitioners. limited because it is difficult for firms to intervene and select demographic background variables for top managers (Priem et al. 1999) .

Based on higher-order theory, it can be learnt that personal traits play a crucial role in the promotion of managers to fulfil their managerial talents and contribute to the firm's revenue capacity and strategic development, so some demographic variables may become more important in the promotion process, thus personal traits such as educational attainment have a potential impact on the selection of managers, which on

the one hand, is that managers' own traits affect their preferences to be selected for the subordinate positions. selection for subordinate positions, and on the other hand, the characteristics of the selected person may affect their behavioural preferences as a manager and thus be taken into account in promotions. Based on this, exploring the effect of educational attainment on promotion may involve the influence of personal traits of top management on behaviour.

2.2 Overview of promotions

2.2.1 Concept of promotion

Promotion, i.e. an individual's advancement in status or treatment within an organisation. No matter how flat an organisation's structure is, there will be differences in the status and treatment of individuals within its organisation, which is a necessary structure for the organisation's normal functioning. From the perspective of motivation, promotion is an essential means of increasing the motivation of individuals within an organisation, whether it is in terms of salary and treatment or in terms of positional advancement, which will directly benefit the employee and thus act as a motivator. However, the motivational effects of different forms of promotion can vary. A survey study by Li (2014) showed that both job promotion and salary grade promotion can significantly increase employees' happiness. Still, the effect of job promotion on happiness is greater than the effect of salary promotion on happiness(李 2014). Similarly, Takahashi (2006) surveyed 1,823 employees at Toyota Motor Group Corporation in Japan and found that fair promotions had a greater motivational effect than salary grade and wage increases. From an enterprise's perspective, a reasonable job promotion system and its effective operation are effective helpers in maintaining the stability of the enterprise structure and promoting the development of the enterprise, and placing the right talents in the right positions is the core task of the enterprise to optimise the allocation of human resources, which is related to the enterprise's

efficiency and development. From an individual's point of view, getting promoted is an effective way to realise personal value and obtain reasonable consideration. On the other hand, not being able to get a reasonable promotion or having limited room for promotion will lead employees to seek different ways to realise their personal value, which will lead to an increase in the willingness of employees to leave the company. Li's study concluded that the expectation of having promotion opportunities significantly increases employees' well-being. Dong and Liu (2020) found that limited space for promotion is a significant influencing factor in the increased turnover rate of rural physicians.

For the study of job promotion paths, Gibbons and Katz (1992) proposed a model in which promotion is achieved through managers' knowledge of employees. The model assumes that due to information asymmetry, managers are unaware of an employee's true competence when he or she joins the organisation and that over time, managers' knowledge of the employee is further enhanced. Managers tend to expect that competent employees will be promoted, which ultimately results in the promotion or demotion of the employee (Gibbons and Katz 1992). The model is simple and easy to understand. The model is simple and easy to understand and can explain to some extent how promotions occur. Further, Gibbons and Waldman (1999) proposed another way of promotion, which is based on Becker's human capital theory in which employees are assigned to specific tasks and in the process of becoming familiar with the tasks the employee gets an accumulation of competence, this accumulation of competence enables the employee to move from a lower level of work to be competent at a higher level of work. This is when promotion takes place (Gibbons and Waldman 1999).

2.2.2 Factors affecting promotions

Factors affecting promotion within the system have been extensively studied by scholars in China and other countries. Two of the main factors are the performance factor and the political resource factor, which have given rise to two research directions,

namely the performance theory and the relationship theory. One of the most influential studies on performance factors is the “tournament model of promotion for local officials” proposed by Chinese scholar Zhou (2007). In this model, higher-level administrators set a competition goal for their subordinates, and the competition winner is promoted. Over time, the target is usually GDP, leading to fierce competition among local governments.

Zhou discusses the reasons why this model is appropriate for China: first, because China has long been a centralised state, where the right of appointment of lower-level officials by higher-level officials is guaranteed; second, because the work to be accomplished by administrative units at the same level is similar, which helps to develop assessment standards that are easy to compare; third, China's economic structure is more balanced, which makes the differences between localities not too large, and thus comparable; and fourth, local governments have strong dominance over the development of the local economy, which makes the competition goal able to mobilise the initiative of local governments.

At the same time, Zhou raised the disadvantages of this model, that is, the public's satisfaction with the government is not included in the competition, which may lead to the local government in the development of the economy does not consider the feelings of the public. Meanwhile, some scholars' understanding of the assessment content of promotion tournaments differs from Zhou's. Liu (2008) argues that the promotion tournaments for Chinese government officials do not use economic performance as the only competition model but also include "political loyalty" and "public opinion in the jurisdiction".

Qiao (2013) empirically verifies whether there is a tournament in the promotion mechanism of Chinese officials and whether there is a single mode of the tournament, and the result is that only economic growth meets the conditions of the assessment index and significantly positively affects the probability of promotion of officials, which supports Zhou's view and agrees with the view that the tournament mode is a single

mode of promotion. Similarly, the empirical results of Yao and Zhang (2013) support the existence of promotion tournaments with economic efficiency as the appraisal mode, and they find that local officials have a significant role in promoting economic growth.

The tournament model has undoubtedly led to the growth of the local economy, but its inherent limitations also make the results of this tournament unsatisfactory. The study by Ding and Liu (2015) confirms that the tournament model has obvious drawbacks, as the turnover of officials will lead to a significant increase in investment in transport infrastructure, while this investment will be significantly reduced before the official's imminent departure. This unbalanced fluctuation will make the investment inefficient, which is contrary to the original purpose of using the higher level of government to mobilise the local government's initiative to develop the economy by using the economic performance appraisal.

Zhan (2019) summarises several significant drawbacks in the tournament model, firstly, the assessment of performance stays at the surface, and the pressure of promotion tournaments forces subordinates to cope with the assessment targets of their superiors, which often makes the assessment a mere formality; secondly, it guides officials to make short-sighted decisions in pursuit of political performance, ignoring the possible inter-temporal impact of government decisions; thirdly, the bias towards assessment targets leads to a “selective attention”, which allocates resources inevitably produce distortion; fourthly, the misalignment of preferences, in the promotion tournament to achieve results only need to accomplish the requirements of superiors, but do not need to respond to the needs of the people, which makes the officials of the behavioural preferences to the superiors to the neglect of the people's demands. The performance factor has objectively become an important factor influencing the promotion of Chinese officials for quite a long time. Still, at the same time, we can also find the defects of this promotion method, and the assessment methods of this

promotion tournament are gradually diversifying, and the assessment methods that only revolve around the GDP have progressively been abandoned.

Another research direction is the relational theory, which argues that promotion depends more on an individual's political resources. The so-called political resources, which have similar connotations to social capital, refer to the network of relationships and resources on which officials can rely for promotion assistance. Access to political resources may generate performance incentives, e.g., Tian and Zhang (2012) find that general managers of listed companies in China significantly increase their performance sensitivity to salary incentives when they are given the political status of NPC deputies or CPPCC committee members.

Of course, the main role of political resources is reflected in the help for promotion. Wu Yun (2012) found that the promotion of county party secretaries and county governors in China is strongly influenced by the two factors responding to political resources, namely, performance experience and relationship networks. Yang et al. (2013) studied the factors influencing the promotion of leaders in central state-owned enterprises and found that the influence of political connections was significant. They used whether they served as a member or alternate member of the Central Committee, whether they served as a member of the Central Commission for Discipline Inspection, whether they served as a delegate to the National People's Congress, whether they had a work history in the central party and government organs, and whether the company's headquarter was in the capital city as a measure of political connections. Ultimately, it was found that leaders of central state-owned enterprises who were members or alternate members of the Central Committee and members of the Central Commission for Discipline Inspection were more likely to be promoted. The findings, however, are potentially flawed.

However, this finding is potentially flawed, as being a member or alternate member of the Central Committee means that one is already a leader in the race for promotion

and arguing that political status helps with promotion is suspected of reversing the cause-and-effect relationship. The meaning of political resources is wealth; some connection with any political figure may become a political resource; for example, Li and Sun (2017) studied the impact of the unique political resource of hometown relationship on promotion; they investigated whether the heads of provincial state-owned enterprises and the provincial party secretaries and organisation ministers of the provinces they were located in 2014 had the same place of origin, to determine whether they had a copper wire relationship. The results of the final regression analysis showed a positive correlation between this hometown relationship and the promotion of the heads of provincial state-owned enterprises. The regression analysis results show a positive correlation between this kind of hometown relationship and the promotion of provincial state-owned enterprises. The influence of political resources on promotion is evident, and the forms of expression are diversified.

Similarly, the influence of other factors on promotion has also been extensively discussed. For example, Baron (1984) found that age and seniority impact employee promotion. Baron observed that firms classify employees into pay grades based on their seniority. As employees accumulate seniority, they acquire more skills, have a greater ability to generate revenue, and are more likely to be promoted. This accumulation of skills and revenue-generating capability is crucial to their advancement.

In contrast, Fyfe and Greene (1997) introduced another perspective suggesting that employees' job potential declines with age. They noted a decrease in work potential as employees grow older, which could negatively impact their career progression. This finding introduces a nuanced view that, while seniority can benefit career advancement, ageing may hinder it.

Expanding on this, Chinese scholars Liu and Liao (2006) performed a classification comparison and found that different types of job performance are affected differently by the employee's age. They discovered that the job performance of manual labourers and

blue-collar workers has an inverted U-shape distribution relationship with age, where performance peaks and then declines. Conversely, the performance of knowledge workers such as doctors, lawyers, and accountants might show a growing positive correlation with age. These professions benefit from accumulated experience and expertise, which enhance job performance as individuals age.

Furthermore, Liu and Liao observed that the relationship between age and performance might exhibit a saddle-shaped distribution for academics engaged in scientific research, suggesting that productivity could vary significantly at different career stages. These findings imply that the impact of age on job performance and the likelihood of promotion can be complex and varied across various occupations.

Steffy and Rosenbaum (1984) explored this further by investigating the turnover of 10,000-15,000 employees in one company. They noted that educational attainment initially had a greater impact on promotion decisions. However, as age and seniority increased, managers recognised an employee's abilities more, increasingly contributing to promotion prospects. They also noted that the decline in physical ability and energy as employees aged reduced the likelihood of promotion, highlighting a dual effect of ageing on career advancement.

This nuanced view of the dynamics of age, seniority, and promotion is echoed in more recent studies. For instance, Yang and Wang (2013) found a negative correlation between the probability of promotion and age for supervisory leaders in central state-owned enterprises (SOEs). This finding was further supported by Li and Sun (2017), who observed a similar negative correlation in promoting heads of provincial SOEs. These empirical results underscore age's complex and sometimes contradictory effects on promotion, suggesting that while experience and seniority can enhance promotion prospects, the physical aspects of ageing pose challenges.

The gender factor may also affect promotion. In many countries, women have fewer opportunities for promotion than men. For example, Cannings (1988) surveyed

692 managers in Canada in 1983 and found that 256 were women, who earned on average 87 per cent of what male managers earned; the survey also found that in each year, women's chances of being promoted were only 80 per cent of those of men. The findings also showed that women were only 80 per cent more likely each year to be promoted than men. This suggests that gender has a significant effect on the probability of promotion. Similarly, Winter-Ebmer and Zweimuller (1997) examined the situation in Austria. They found that the likelihood of promotion was generally lower for women than for men and that the earnings of female employees remained at about 65 per cent of those of male employees for a considerable time. They argued that differences in the endowment of women's abilities accounted for only a tiny part of the causes of this phenomenon and that the more unexplained part of it is due to inequality. They argue that the difference in women's ability to endowment accounts for only a tiny part of this phenomenon and that the more unexplained part is due to inequality.

In China, women also face significant promotion challenges in the workplace. Macroeconomic data show that as of May 2023, among the 74,000 executives in 5,064 A-share listed companies, only 16,000 were women, accounting for merely 20%; furthermore, less than 6% of these listed companies had female chairs (A report from China Women's News). Similarly, a 2020 report by the Peterson Institute for International Economics indicated that among the over 14 million workers employed by China's central non-financial state-owned enterprises, 24% were women, yet only 5% of their more than 800 senior executives were female. These data clearly demonstrate that, particularly within state-owned enterprises, the proportion of women promoted to senior leadership positions is significantly lower than that of men, reflecting the pervasive phenomenon of the 'glass ceiling'. Some scholars in China have also analysed this issue. Yan and Yan (2008) used interviews with predefined situations to collect corporate employees' perceptions of the possibilities arising from sexist scenarios in the workplace. They found that a tendency towards sexism emerged in a wide range of

situations and that it was easiest to produce unfair treatment of women when arranging jobs(Yan et al. 2008). Qing (2011) used data from a sample survey to analyse the data and found that women's promotion competency criteria were higher than men's. There was a significant gap between women's job hierarchy and the probability of promotion and men's.

Despite legal frameworks emphasising equality, these studies and data indicate that deeply ingrained traditional gender notions continue to contribute to unfairness in women's career development. This phenomenon stems not only from structural barriers within organisations but is also profoundly influenced by traditional Chinese gender notions. The traditional Confucian expectation of 'men outside, women inside' (male breadwinner, female homemaker) leads women to generally bear greater family responsibilities. This not only impacts their professional commitment and allocation of energy in the workplace but can also lead organisations to question women's career dedication, thereby limiting their promotion opportunities.

Furthermore, social networks (Guanxi) are crucial for career development in China, and women may face unique challenges in establishing and utilising these gendered social capital networks. For instance, Nolan and Rowley (2022), in their study of China's 'Guanxi' culture, found two disadvantages for women participating in 'Guanxi' practices: firstly, women may be excluded from informal after-work activities due to family responsibilities; secondly, male-dominated venues may make women uncomfortable, thus hindering their participation(Nolan and Rowley 2020). Abraham's (2019) research revealed that when decision-makers need to please a third party or an audience, gender bias may also arise, with decision-makers then tending to favour male contacts, putting women at a disadvantage when obtaining client resources(Abraham 2020).

2.3 Chinese Cultural Context of Education and Implicit Social Networks (Guanxi)

Exploring the correlation between educational background and promotion has been discussed previously from the perspectives of individual ability, namely human capital, and social identity, namely social capital; these can be referred to as explicit perspectives. However, in this section, we will discuss an implicit perspective: how the construction of potential interpersonal relationships influences employee promotion through educational background.

It is evident that interpersonal relationships are an essential factor in the construction of organisations and a vital resource for the acquisition of social status. Whether these are called social capital, social networks, or the Chinese culture of “relationships”, this phenomenon exists widely in China and other countries, though with differences in the form in which it is expressed. We have already mentioned the influence of relationships in acquiring social status, which is widespread across countries. In this section, we will continue to discuss the critical concept of “relationships” and analyse how this factor affects the promotion process of employees with different educational backgrounds.

2.3.1 Formation of Chinese Traditional Selection System and Educational Networks

Before defining the concept of potential connections, it is helpful to take a longer view of how organisations have been constructed in Chinese history. It should be noted that the modern company, in the British sense, has been in existence for less than two hundred years. Naturally, there are no companies older than two hundred years. Still, the history of humanity, and especially the history of China, is full of organisations older than two hundred years, the most typical example being the political regime,

which was the most important and most potent organisational form of pre-modern societies. As mentioned earlier, promotion mechanisms are essential in any organisation; they are about the “metabolic cycle” of the organisation. In Chinese history, the promotion mechanism in this form of organisation, the regime, has long considered the individual's level of education. Not only did Plato put forward the idea of the “philosopher king” in *The Ideal State*, but also Confucius, the most crucial philosopher in ancient China, put forward the concept of “learning is the best way to be an official”. There is a certain similarity between these two concepts in terms of the correlation between the individual's education and the power they possess. This demonstrates an early recognition in ancient China of the correlation between individual knowledge and ability (which can be seen as an embryonic form of human capital) and political elite selection. It signified that education was closely linked to the acquisition of power and social status, laying a foundational role for education in social stratification and mobility.

During the Han Dynasty, the nomination system was the primary way for the government to promote officials, and local officials would recommend those with academic knowledge and reputation as candidates for appointment by the emperor. However, since elite families often monopolised educational resources, most commoners could not acquire knowledge through apprenticeships, and members of elite families gradually took over this avenue of promotion. Consequently, the nomination system, though designed to select the virtuous, failed to fulfil its original purpose; its operational mechanisms exacerbated the high concentration and transmission of educational resources and social capital within elite families, leading to the solidification of social mobility. By the time of the Jin Dynasty, the phenomenon of “no humble family at the top” emerged, which meant that all senior officials in the regime came from prominent families. This situation was not what the rulers wanted to see. Although the emperor's power came from the hereditary system, the emperor did not

wish the bureaucrats' power to be passed on through hereditary succession, which affected the supremacy of the imperial power.

As the elite families continued to decline amid war, it was during the Sui Dynasty that the imperial examination system first appeared in China, a system of selecting officials by examination. As the imperial examination system continued to develop, more commoners could obtain official positions through education, and a small group of people no longer monopolised the resources for education. This standardised, open examination system (a form of formal institutional design) broke the traditional monopoly of blood ties and aristocratic clans, theoretically offering broader social strata opportunities for upward mobility. In the Ming Dynasty, a unique cultural phenomenon emerged, in which the chief examiner of the imperial examinations was called the “seat-teacher” by the candidates who took part in the examinations, and when the candidates passed the examinations, they had to pay a visit to the chief examiner together; at the same time, the candidates who were successful in the examinations of the same year were called “the same year” to each other, meaning that they were successful in the examinations of the same year. These informal connections, based on shared examination experiences and teacher-student relationships, constituted China's unique Educational Social Networks. This network form is characterised by providing Information Sharing, Mutual Support, and a Platform for Collective Action, offering an additional foundation of trust among members. It represents an important manifestation of Social Capital within the Chinese cultural context.

The “same year” and “seat-teacher” relationships profoundly influenced the career development of officials, particularly their advancement in officialdom. Seat-teachers and same-year peers would form a potential political alliance, which was usually no longer potential but actual and tangible when their positions were closer together, which happened many times in the history of the Ming dynasty. These alliances can be viewed as informal organisations embedded within the formal bureaucratic system, playing

significant roles in political decision-making, resource allocation, and even power struggles. For instance, research indicates that “same year” relationships often facilitated promotion in two forms: firstly, when an official was in the Board of Civil Office (the department managing official promotions and assessments), they would more readily recommend and promote their “same year” peers; secondly, when an official had an opportunity to take up a new post (e.g., leaving office), they could recommend “same year” peers to their superiors (Pei 2024). The “same year” relationship enhanced mutual understanding, and this consensus within official circles helped reduce transaction costs and avoid information asymmetry when engaging in mutual benefit exchanges, forming a crucial basis for building social capital.

The cultural traditions of the “seat-teacher” and “the same year” continued into the Qing dynasty, the closest feudal dynasty to modern China, and many of the cultural traditions of these two eras have profoundly impacted contemporary China. This social network, shaped by common educational backgrounds, profoundly influenced China's Interpersonal Interaction Paradigm and the logic of social capital construction. Even in modern society, these cultural traces continue to influence perceptions of the role of educational background in promotion.

2.3.2 Evolution of “Guanxi” Legitimacy: From Blood Ties to Educational Ties

During the feudal dynasty, whether it was the recommendation system in the early period or the examination system in the middle and late periods, while the educational background had an impact on the promotion of officials, another critical factor was also openly influencing the promotion, and that was personal connections. In the early feudal dynasty, such connections came more from blood ties; this was a highly exclusive and rigid form of social capital. Still, with the development of the times, there was a change in the construction of connections, a shift from direct blood ties to potential teacher-student relationships. This shift is usually considered to be because educational

resources were no longer monopolised, making the imperial examination system fairer. In the course of the change, it is worth noting that connections affected an individual's access to education and, thus, their path to promotion in the early feudal dynasty. In contrast, after the imperial examination system was perfected, connections generated through the examination experience would impact an individual's subsequent promotion.

Of course, in the Ming Dynasty, where the relationship between the seated teacher and the same year existed, not only the network generated by the examination but also the network brought about by the educational background would directly impact the individual's promotion. For example, the most important political group in the late Ming Dynasty, the “Donglin Party”, was a group of officials that revolved around the educational venue of the Donglin Academy. This political group is a typical example of the strong cohesion and political utility of educational networks. This indicates that, in this period, educational institutions were not only places for knowledge transmission but also developed into key fields for social capital generation and reproduction.

In Confucianism, the most crucial relationship between individuals is the “Five Luns”, i.e., five relationships: heaven, earth, sovereign, parents and teachers. Apart from heaven and earth, which represent the abstract concepts of the natural world, the relationship between an individual and their sovereign, parents and teachers is the most important interpersonal relationship, which endowed teacher-student relationships with a high degree of moral authority and social recognition. Compared with the blood ties of parents and relatives, the teacher-student relationship had a certain legitimacy in assisting in personal advancement, as it avoided the direct hereditary succession of official power, which was the most taboo of the monarch. The passing on of the teacher's knowledge and political ideals by the students was encouraged by social morality. Thus, the influence of educational background on promotion during the feudal dynasty was significant and overt. Indeed, academic networks gradually developed into

an acceptable and effective form of social capital, thus exerting a significant and lasting influence on the promotion mechanisms of the feudal dynasty.

2.3.3 Reshaping of “Guanxi” and the Prominence of Educational Networks in Contemporary Chinese Institutions

In any case, the influence of personal connections on promotion was public, which was morally neutral for the simple reason that no matter how much the emperor asked his subjects to reduce the influence of personal connections in the selection and promotion of officials, the emperor's power was inherited from the interpersonal relationship of blood. The emperor's act of providing titles and fields to his relatives was not in any way from the public mind. In the top-down organisation, the emperor at the top was created by personal relations, and the promotion mechanism of the officials below would not be free from the influence of individual relations in any case; the succession of emperors was legitimate, and the promotion of officials influenced by personal relations was naturally morally neutral. This was a long-standing situation during the feudal period, but in the New China period, the situation changed significantly. This transformation highlights the impact of institutional change on the forms of social capital.

According to the biography of Mao Zedong, after the establishment of New China, the brother of Mao's wife, Yang Kaihui, tried to get Mao to move his job for him, but Mao refused. In feudal society, it was a matter of course for emperors to bestow official positions, titles and land to their relatives. The emperors did not need to avoid this, even though it was unfair to commoners and officials, but the emperors had the right to do so, as did anyone who became an emperor. In modern China, however, it is not permissible, morally or institutionally, for an official to facilitate the promotion of their relatives. The system of avoidance of the posting of party and government leaders is specified in Article 52 of the Regulations on the Selection and Appointment of Party and Government Leaders issued by the Central Committee of the Communist Party of China

(CPC) in 2019, which requires that the existence of a husband and wife relationship, a blood relative in the direct line of descent, a blood relative in the bloodline of up to three generations, or a relative by marriage between the two parties, shall not serve in the same organ as both directly subordinate to the same leader or have a direct superior and subordinate leadership relationship, and shall not be engaged in organisation (personnel), discipline inspection and supervision, audit and financial work in the organ in which one of the parties holds a leading position. It should be noted that this requirement was not proposed for the first time in 2019; the exact requirement already existed before that in different laws and systems. Similarly, in state-owned enterprises, some have already clearly stipulated that the children of enterprise leaders need to be publicly announced when they enter the work of the enterprise and get social supervision. It can be concluded that the role of blood ties, as open and powerful interpersonal relationships, in the promotion process will be significantly suppressed. Although promotion facilitation brought about by blood ties is likely to occur, it must be eliminated in the system. It will be subjected to institutional and ethical scrutiny when it happens in practice.

Returning to the point of this study, educational background is potential networking, and by potential networking, I mean that such relationships can exist, but they do not necessarily exist. The reason for exploring the influence of connections on promotion is that the promotion mechanism is still essentially a mechanism for people to make decisions, and connections will inevitably influence people's decision to be promoted. Although this may be morally questionable, it is difficult to eliminate in practice. From an institutional perspective, blood ties are the most scrutinised relationships, and their influence is clearly restricted in contemporary Chinese governmental systems. At this point, as one of the most important interpersonal relationships in traditional culture, the network brought about by educational background naturally becomes an important factor influencing promotion. This is both a continuation of Chinese history and an

inevitable trend resulting from the restriction of blood ties in the distribution of power within publicly owned enterprises.

Educational background, as a form of interpersonal relationship, inherently possesses a certain discreteness compared to blood ties. The overlap in educational background does not necessarily mean that both parties know each other, but the common educational background provides a basis for trust and consensus between individuals. In certain circumstances, individuals who are not acquainted can quickly trust each other and form substantial alliances; this represents a potential interpersonal relationship. The nature of academic networks is analogous to Granovetter's (1973) concept of “weak ties.” Granovetter posits that weak ties can possess stronger “cohesive power” in information transmission and individual mobility because they connect different social groups, leading to non-redundant information. Therefore, information regarding promotion opportunities, internal industry news, and potential job vacancies often circulates from one circle to another through the weak ties formed by academic connections.

Furthermore, as famously described by the renowned Chinese sociologist Fei Xiaotong in his classic concept of the “Differential Mode of Association (差序格局),” Chinese social networks resemble ripples on the surface of water, with individuals at the centre. As the ripples expand, individuals' social relationships become more distant and less close. When stronger ties are less effective, the potential connections brought about by educational background come into play. Additionally, due to long-standing historical traditions, the interpersonal networks formed through educational backgrounds possess an inherent cohesiveness, which provides a basis for individuals with similar educational backgrounds to form consensus and partnerships of interest. This is the significance of the potential connections discussed in this section, and it will aid in understanding the influence of educational background on promotion.

2.4 Summary of Literature Review

This chapter introduces theories relevant to understanding the impact of educational attainment on promotions, which are analysed from four main theoretical perspectives. Human capital theory posits that educational attainment enhances an individual's value by developing skills beneficial for organisational growth, suggesting that promotion mechanisms should consider educational background to better identify organisational talent. Social capital theory views education as a critical resource that fosters trust and cohesion within social structures, with shared educational experiences potentially enhancing workplace recognition and trust, thus benefiting career advancement. Social status attainment theory highlights education as a key driver in achieving social mobility, while the upper echelons theory links managerial educational attributes to decision-making capabilities, influencing organisational leadership selections.

Previous research has examined factors impacting promotions, with a strong focus on executives and government officials in Chinese contexts. However, studies on educational impact within state-owned enterprises (SOEs) across all employee levels remain limited. This study seeks to fill this gap by examining large SOEs, specifically state-owned banks, analysing how educational attainment affects career development and promotion mechanisms within this sector.

Through a theoretical framework grounded in human capital, social capital, social status attainment, and senior echelons theories, this study aims to reveal how education shapes career progression within SOEs. The research will provide insights for enhancing talent selection processes and individual career planning, contributing to the long-term development of SOEs and optimising human resource practices.

2.5 Research Hypotheses

Based on the previous discussion, it is clear that both human capital theory and social capital theory emphasise the relationship between educational attainment and individual capabilities and that educational background can profoundly affect employees' workability and productivity. Educational background is a significant human capital. Higher education usually means more profound professional knowledge, higher thinking ability, and more vital problem-solving ability, which are significant factors in promotion in state-owned enterprises. Under a relatively fair mechanism, many organisations recognise and respect employees' educational backgrounds and learning experiences as essential indicators of their knowledge base, professional competence and potential achievements. This phenomenon is particularly prominent in state-owned enterprises (SOEs), which should pay more attention to employees' academic credentials in talent selection and promotion. As a result, employees with high educational attainment may have more advantages in the competition for promotion. Based on this, this study hypothesises:

Hypothesis 1: Within state-owned enterprises, there is a positive correlation between employee promotion and the education factor, and the higher the employee's initial and final education, the easier it is to get promoted.

Meanwhile, social capital theory suggests that the resources and information people acquire through social networks are important factors in their socio-economic success. Further upgrading of educational attainment is usually accompanied by an expanded social network and richer information resources, which may increase employees' social capital and, thus, their chances of promotion. In practice, most enterprises and institutions have specific threshold requirements for educational attainment for middle and senior positions. In contrast, state-owned enterprises (SOEs) may have higher standards for educational attainment due to their higher standards for staff's professional

skills. Such requirements cause many employees in the workplace to choose a variety of further education and other ways to improve their original educational attainment to develop their careers. Based on this, this study proposes another hypothesis:

Hypothesis 2: Further upgrading of educational attainment after joining a state-owned enterprise will help employees get promoted.

Although this study focuses on the impact of non-performance factors on promotion, it is undeniable that performance as a factor still plays a vital role in promotion. However, when there is no significant difference in performance factors, personal attributes such as educational attainment will be important for employees' career development. In the traditional Chinese official culture, “appreciation” and “value highly” has always been decisive for personal development because those who are “valued highly” by their superiors are more likely to be assigned important or easy-to-do tasks, which makes it easier for them to get the job done. This is because people who are “valued” by their superiors are more likely to be assigned important or easy-to-do tasks, which makes them more likely than people with the same ability to make progress and achievements in performance, thus greatly accelerating the process of personal advancement. Then, when the employees are in the state for a shorter time of joining or lower rank, and their performance does not have significant differences from each other, their personal characteristics will largely determine the degree of importance they get in the post, which further affects their chances of getting promoted. Education is the most easily accessible and apparent difference in personal characteristics. Based on this, this study hypothesises:

Hypothesis 3: The effect of educational attainment on promotion is more significant in lower-level promotions.

It should be emphasised that educational attainment is not only a reflection of one's abilities but also, to a certain extent, an important social resource and interpersonal relationship, which is the social capital of an employee. In traditional China, people who

pass the imperial examinations in the same year are called “the same year” to each other and worship the year's examiner as their teacher. This kind of social relationship linking to teachers and classmates will become an important network of contacts in their future careers. Academic background also has a similar role; educational attainment brings networking ties, which will become personal development that must be addressed in the social capital, but also, similar educational backgrounds will facilitate the promotion of employees. Based on this, this study hypothesises:

Hypothesis 4: The more similar the educational background of the supervisor, the higher the probability of promotion for the employee.

At the same time, the educational background is more than just a simple social resume because a university can often form a social network radiating in a specific geographic space. Every student who graduated from it or is a serving teacher is a node of this network. When these nodes are located close to the school's location, this social network will be able to efficiently integrate the resources of these nodes and form a notable network of social resources, which will be for graduates' job search and work in the neighbouring areas. Based on this, this study hypothesises:

Hypothesis 5: The closer an employee's graduation institution is to the place of work, the higher the probability that the employee will be promoted.

Educational attainment is an acquired personal characteristic; in contrast, gender, as an innate trait, may exert a different influence on employees' career advancement. Globally, the phenomenon of discrimination against women in workplace promotion is commonplace. In China, this issue is equally prevalent and profound, manifested as disadvantages for women in recruitment, remuneration, and career development, particularly in high-level promotions. In traditional China, Confucian culture emphasised 'men leading outside, women leading inside', meaning women were solely expected to fulfil domestic responsibilities, often without opportunities to participate in social affairs, and consequently, were not expected to receive education. This led to a

lack of educational rights and prolonged social disempowerment for traditional Chinese women, with only a small proportion able to receive an education, which often centred on teachings emphasising women's familial obligations within Confucian culture.

However, modern China has emphasised women's equal right to education, which has liberated women's social roles. Nevertheless, deep-rooted traditional gender norms still exert an inertial influence in the modern workplace. For instance, women generally face heavier burdens of domestic responsibilities, which can exacerbate work-family conflict, and may be perceived by organisations as a potential impediment to career commitment. Furthermore, within enterprises, particularly State-Owned Enterprises (SOEs), promotion is often significantly influenced by informal social networks ('Guanxi'), and women may be at a disadvantage in building and leveraging certain gendered social networks (Nolan and Rowley 2022; Abraham, 2019). In this context, women's educational background, as socially endorsed human capital, can receive equal treatment and attention in the workplace. This serves as a crucial compensatory mechanism for female employees facing the aforementioned structural barriers and implicit biases. Specifically, a high educational attainment, as an objective 'hard capital', can effectively compensate for the disadvantages women may face when confronting informal networks and traditional biases, serving as a strong signal of their capability and professional commitment, thereby allowing them to secure more opportunities in an imperfectly fair promotion competition.

Unlike the differential treatment in the workplace, throughout the long process of schooling, due to the objectivity and fairness of examinations, men and women are typically not treated differently. Thus, both genders enjoy relative fairness in the process of acquiring educational qualifications. Therefore, in internal corporate promotions, educational attainment, as a personal capital that can be acquired equally, is highly likely to play a more significant role in women's advancement.

Based on this, this study hypothesises:

Hypothesis 6: The promotion of female employees is more significantly affected by educational attainment than male employees.

2.6 Summary

This literature review contains critical studies on educational background and career advancement within state-owned enterprises. The review highlighted the significant role that educational attainment plays in influencing promotion opportunities, particularly in large and bureaucratic organisations like state-owned enterprises. Previous research has extensively explored the link between academic qualifications and career progression, with many studies emphasising the importance of formal education in enhancing an individual's professional opportunities. However, gaps remain in understanding the nuanced effects of educational background, such as how educational networks influence career trajectories and the gender-specific impact of education on promotion.

While much of the existing literature has focused on general promotion mechanisms, fewer studies have specifically addressed how educational background functions within the unique organisational culture of state-owned enterprises. Additionally, limited empirical evidence examines how social networks, built through shared educational experiences, affect promotion opportunities.

This review demonstrates that while education is a well-documented factor in career advancement, further investigation is needed to understand its full impact on state-owned enterprises, particularly concerning informal networking and gender dynamics. The insights gained from this review support the need for a comprehensive study that combines both qualitative and quantitative approaches to address these gaps. My research seeks to build on this foundation by examining how educational background influences promotion within state-owned enterprises, offering new perspectives on the mechanisms of career progression in these organisations.

3. Chapter 3: Research Methodology

3.1 Introduction

This chapter details the research methods and overarching research philosophy adopted in this study, including the approach to questionnaire design and the strategy for designing interview content. The study utilised questionnaires and interviews to gather data. A rational sampling design is crucial for ensuring the statistical effectiveness and representativeness of the information gathered, reflecting real-life scenarios accurately. For this purpose, the study has designed a stratified sampling method to obtain sufficiently comprehensive and accurate information. The design of the questionnaire and interview content requires considering the research themes, the willingness of employees to participate in questionnaires and interviews, and the practical feasibility of information-gathering methods, among other objective factors. After design and discussion, this chapter outlines the principal questions for the planned questionnaire survey and interviews and devises a detailed plan to facilitate the entire information acquisition process. This will lay a solid foundation for subsequent research and the interpretation of results.

3.2 Research Philosophy: Positivism

Positivism asserts that all actual knowledge stems from perceived experience, meaning that research should be based on observational and measurement data. This philosophical approach is highly suitable for this study, focusing on empirical data collection and statistical analysis to uncover patterns and relationships.

Positivism aligns closely with this study's objectives, particularly in the quantitative analysis of the relationship between educational background and career promotion. It

provides an objective and verifiable foundation, aiding in hypothesis testing and drawing reliable conclusions.

Positivism is widely recognised in the natural sciences and is indispensable in social science research. It emphasises objectivity and the testing of hypotheses through observable phenomena.

In this study, positivism guides data collection on employees' job levels, ages, genders, initial and final educational attainments, and promotion status. These measurable factors enable the exploration of the potential correlation between educational background and promotion. By adhering to positivist principles, this study aims to provide reliable and objective evidence to support or refute the proposed hypotheses about the influence of educational attainment on employee promotion in state-owned enterprises (SOEs). The use of positivism ensures that the research findings are grounded in empirical data, allowing for a rigorous and unbiased analysis.

3.3 Research Design

The study is survey-based, using a bank case study. It combines empirical research via a questionnaire with more qualitative data via semi-structured interviews. Empirical research collects quantitative data through questionnaire surveys, while semi-structured interviews provide in-depth qualitative data. This mixed-method approach helps to comprehensively understand the complex factors influencing promotion and verify the consistency between different data sources.

3.4 Empirical Research

3.4.1 Data Source

The study employs questionnaires and interviews for data collection, with questionnaires providing key quantitative evidence. As the study focuses on the

promotion mechanism, it is essential to include many participants who have experienced promotion. A sizeable state-owned bank was selected as the source of the sample. This bank's promotion mechanism closely resembles those of conventional state-owned enterprises, with the primary distinction being the designation of ranks.

The bank selected for this study was established in 1987, marking a new historical phase in China's banking industry. As the first joint-stock commercial bank in China wholly owned by corporate legal persons and the first pilot bank for banking sector reform initiated outside the system, its establishment is a significant milestone in China's financial reform. The creation of this bank stems from the Chinese government's active practice of marketisation reforms in the banking sector. In a context where the four major state-owned banks solidly occupied a dominant market position, a new batch of commercial banks was established in the 1980s, gradually becoming a significant force in the Chinese banking industry. Among these new commercial banks, the one involved in this study, the frontrunner and the earliest to adopt a joint-stock structure and market operation model, is a notable achievement on China's path to banking sector reform. The emergence of joint-stock commercial banks signifies the gradual transition of state-owned banks towards entities with a modern corporate system.

After over thirty years of rapid development, this bank has become the sixth-largest bank in China, with a vast employee base spread across the country. As of the end of 2022, the total number of employees had reached 112,999, primarily distributed across the bank's various branches. The bank actively embraced the capital market throughout its development, continuously broadening its financing channels. In 2002, it was successfully listed on the Shanghai Stock Exchange in mainland China, and later, in 2006, it was also successfully listed on the Hong Kong Exchanges and Clearing Limited, further broadening its international financing channels and expanding its investor base. By the end of 2023, the bank's market value had reached 687 billion RMB, making it the fifth largest bank in terms of market value within mainland China, showcasing the

achievements of this commercial bank and highlighting the importance of China's banking sector reform.

The bank's primary business encompasses three major areas: personal banking, commercial banking, and capital market services. The bank offers various financial services in personal banking, including savings deposits, loans, credit cards, personal wealth management, investment products, etc. Commercial banking provides a comprehensive suite of financial solutions for corporate clients, including corporate loans, deposits, trade finance, international settlement, cash management, corporate annuities, etc. In capital market services, leveraging its professional investment and asset management capabilities, it offers investment services for institutional and high-end individual clients, including securities underwriting and sponsorship, mergers and acquisitions, bond issuance and trading, fund management, asset management, equity investment, etc. Banking remains the enterprise's core business, with the vast majority of its more than 50,000 employees working within banking institutions.

The bank has a relatively dispersed ownership structure without a real controller. The actual largest shareholder is a vice-ministerial level state-owned enterprise, directly managed by the State-owned Assets Supervision and Administration Commission of the State Council, holding approximately 30% of the bank's shares. Formally, the bank is controlled by a board of directors led by major shareholders and appointed management. Currently, the bank's chairman is also the chairman of the first major shareholder company. This is a common phenomenon of “higher allocation” among Chinese state-owned enterprises, where some state-owned enterprises have a significant status in the industry or have a significant impact on the national economy, and the administrative level of their managers is higher than that of the enterprise itself. Specifically, from a formal perspective, the bank is a subsidiary of a vice-ministerial level enterprise, and its highest responsible person (i.e., the chairman) should have a lower level than the vice-ministerial level. However, the bank's chairman is also the

chairman of the vice-ministerial level enterprise, which elevates the administrative level of the bank's highest responsible person, a phenomenon of higher allocation. The bank's chairman is an official with a vice-ministerial administrative level, and many senior managers also have administrative levels. The bank internally has a Party committee and a Discipline Inspection Commission, and the bank's management is supervised by the Communist Party's Discipline Inspection Commission and the government's Supervision Commission. This is a manifestation of the administrative colouration of state-owned enterprises. Although the bank is the first commercial joint-stock bank, the presence of state-owned components means it still retains traces of administrative officials in its management.

The president and chairman of the bank's head office are usually at the vice-ministerial level, and the head office has branches in every provincial administrative region within mainland China, with some areas having more than one branch, for a total of forty-four branches; the presidents of these branches are at the level of director, regarding the management of civil servants, and there are vice-presidents, general managers, and supervisors below the president. At the head office, the corresponding levels have different designations. To simplify the process, the five levels to be studied in my study are collectively referred to as ordinary employees, deputy section chief employees, section chief employees, deputy director employees and director employees; although this is not very accurate, it reflects the hierarchical differences are not different.

The study focuses on four primary promotion paths: ordinary employees promoted to deputy section chief employees, deputy section chief employees promoted to section chief employees, section chief employees promoted to deputy director employees, and deputy director employees promoted to director employees. In each promotional path, both promoted and non-promoted employees were sampled. Specifically, promoted samples were drawn from employees who had been promoted, while non-promoted

samples were drawn from employees who had not been promoted. For example, in the promotional path from ordinary employees to deputy section chief, promoted samples were drawn from employees who had been promoted to deputy section chief, and non-promoted samples were drawn from those who remained ordinary employees. For non-promoted samples, information about their current rank was collected; for promoted samples, information about their rank before promotion was collected. Each employee was only sampled once, either as a promoted or non-promoted sample.

In the two lower-level groups, the ratio of promoted to non-promoted samples is 1:1. In the higher-level promotional paths, specifically from section chief to deputy director and from deputy director to director, a 1:2 ratio of promoted to non-promoted samples is used. This ratio better reflects the increasing difficulty of promotion as one moves up the levels.

This study employs a Two-Stage Stratified Cluster Random Sampling method to acquire research samples, aiming to ensure the representativeness of the sample and the precise addressing of the research questions. Stratified sampling, as a common method in probability sampling, offers the advantage of improving the representativeness and accuracy of surveys, thereby obtaining more representative samples (e.g., Cochran, 1977; Babbie, 2013). This method requires dividing the population into non-overlapping strata, then independently and randomly drawing samples from each stratum, and finally combining the samples drawn from all strata to form the final sample set. This study adopted this two-stage stratified sampling approach for two primary reasons: in the first stage, given the widespread geographical distribution of the bank's branch institutions, stratification by geographical characteristics allows for obtaining sample characteristics representative of each region; in the second stage, as employee promotion itself is inherently hierarchical, this method aligns very well with the original characteristics of the employee promotion sample.

Stage One: Regional Stratification and Random Selection of Branch Institutions

In the first stage, the overall population for sampling was derived from over forty branch institutions of this bank across the country. To ensure comprehensive coverage of diverse geographical characteristics within the sample, the study first stratified these branch institutions according to China's geographical administrative divisions. Specifically, the bank's over forty branch institutions were categorised into seven major regions: Northeast China, North China, Northwest China, Southwest China, East China, Central China, and South China. Subsequently, we randomly selected one representative branch institution from each region to serve as the source for the first-stage sample. These seven selected branch institutions formed the basis for the subsequent sampling in this study. This design ensured that the final sample could encompass employees with diverse regional characteristics, thereby effectively reflecting the bank's overall employee structure and promotion dynamics across different regions. The final seven selected branch institutions serving as sample sources are detailed in Table 1.

Table 1 Total Sample Source

Branch Name	Region	Number of Employees
Beijing Branch	North China	6000
Dalian Branch	Northeast China	1135
Chongqing Branch	Southwest China	1700
Shanghai Branch	East China	6200
Haikou Branch	South China	336
Urumqi Branch	Northwest China	970
Wuhan Branch	Central China	2500

Stage Two: Job-Level Stratification and Random Selection of Employees within Selected Branches

Following the identification of the seven regionally representative branch institutions, this study further conducted a second stage of stratified random sampling based on employees' promotion job levels within all employees of these selected

branches. This was done to ensure sufficient coverage and precise analysis across different job levels. The final total sample size for this study was set at 2,100 individuals. Based on promotion levels from low to high, a disproportionate stratified sampling principle was adopted, with sample distribution ratios of 8:4:2:1 across the four promotion job-level paths. This stratified sampling strategy was employed to ensure an adequate sample size for analysis within each stratum, given that job promotion follows a pyramid structure with fewer individuals at higher levels, especially in senior positions where promotion rates are lower along certain promotion paths (e.g., Groves et al. 2009).

Specifically, for the lower-level promotion paths from Ordinary Employees to Deputy Section Chief, and from Deputy Section Chief to Section Chief, the study adopted a 1:1 ratio for promoted and non-promoted samples, aiming to capture the dynamics of grassroots promotion. However, considering the significantly increased difficulty of promotion at higher levels and the corresponding decrease in actual promotion rates, for the promotion paths from Section Chief to Deputy Director, and from Deputy Director to Director, we employed a 2:1 ratio of non-promoted to promoted samples. This design was intended to more accurately reflect the scarcity of higher-level positions and the intensity of promotion competition, while simultaneously ensuring sufficient statistical power for the analysis of successful promotions within these strata.

In total, 2,100 samples were selected for this study, covering four distinct promotion job levels. Promoted and non-promoted samples were allocated across each level to ensure representativeness within each stratum. Specifically:

For the promotion path from Ordinary Employees to Deputy Section Chief, 560 Ordinary Employees were selected as non-promoted samples, and another 560 employees who were promoted to Deputy Section Chief served as promoted samples.

For the promotion from Deputy Section Chief to Section Chief, 280 Deputy Section Chiefs were selected as non-promoted samples, and 280 employees promoted to Section Chief served as promoted samples.

Due to the increased difficulty of promotion at higher levels, for the promotion path from Section Chief to Deputy Director, 187 Section Chiefs were selected as non-promoted samples, with only 93 individuals promoted to Deputy Director serving as promoted samples.

Similarly, for the highest level of promotion from Deputy Director to Director, 93 Deputy Directors were selected as non-promoted samples, and 47 individuals promoted to Director served as promoted samples.

3.4.2 Questionnaire Design

The questionnaire was designed with full consideration of the content required for this study, the variables involved, the influential variables used in existing studies, and the collection of information helpful for understanding the promotion situation at the case company. The first information to be collected relates to quantitative research, which includes the employee's level, gender, initial educational attainment, final educational attainment, whether they have received an educational advancement, whether the graduation institution is in the same province as the workplace, and information related to the educational background of the employee and their immediate superior. This includes the final educational attainment of the immediate superior, whether there is an overlap of the graduation institution or similarity in the significant fields of study between the employee and the immediate superior. These pieces of information are collected based on the hypothesis proposed earlier: employee promotion is influenced by their educational attainment, gender, the distance between the graduation institution and workplace, and whether there is an overlap or similarity in the educational background with their immediate superior. Based on the previous review of related theories, it is understood that from a human capital perspective, educational

attainment, as an essential capital possessed by employees, will play a significant role in their career promotion. From the viewpoint of social capital and identity, having the same or similar educational background as the immediate superior will help gain more recognition, thereby aiding in employee promotion. From the practical aspect of social status attainment, gender often affects employee promotion and income, and educational attainment, a more equitable human capital element, is likely to improve this gender dilemma, meaning the impact of educational attainment on promotion may contribute to the realisation of social justice. The geographical distance between the graduation institution and the workplace is a practical factor that can affect the construction of social networks, which in turn may impact employee promotion.

After setting these questions, some additional questions need to be supplemented to collect information that can help understand the company's promotion situation. For example, the questionnaire includes a question investigating whether employees have worked in core departments before getting promoted, which helps to understand if there are differences in the difficulty of promotion across departments. To understand employees' perceptions and evaluations of the company's promotion system, the questionnaire also designs some questions, such as what factors employees themselves believe lead to promotion or failure to promote, whether there are educational differences between employees who are promoted or fail to get promoted, and whether employees consider the company's promotion system to be reasonable. Answering these more open-ended questions will help present some details and specific situations of the company's case promoting system.

3.4.3 Data Collection

After completing and returning the questionnaires, they were carefully reviewed to ensure completeness and reliability. Questionnaires that were incomplete or unreliable were discarded. The verified questionnaires were uniformly entered into a computer

database using data entry software. This step ensured that all collected data were accurately digitised, facilitating subsequent data analysis.

3.4.4 Data Analysis Methods

This study employed logistic regression to analyse the impact of educational background on promotion likelihood. Logistic regression is appropriate for situations where the dependent variable is binary (e.g., whether an employee is promoted). The independent variables include educational level, work experience, and gender, while control variables such as job performance and years of service were included to ensure the robustness of the analysis. The data analysis was performed using Stata software, and the significance and robustness of the models were tested multiple times. The results of the quantitative analysis will be presented in the following chapters to demonstrate the impact of these variables on promotion opportunities.

Before analysis, the data was cleaned and processed to ensure its completeness and consistency. Missing and outlier values were addressed to avoid biasing the results. The processed data was then analysed using logistic regression to calculate the coefficients of the independent variables on promotion outcomes. The specific results of this analysis will be further discussed in Chapter 4.

3.5 Semi-Structured Interviews

3.5.1 Interview Participants

Similar to questionnaire surveys, this study conducted interviews with employees of the case company across the five levels previously discussed. Interview participants were recruited from the same seven bank branches that served as the sampling scope for the previous questionnaire study. Twelve employees from each of the five levels were selected from these branches, totalling 60 participants. Recruitment was conducted by posting advertisements and sending invitation emails to a randomly selected number of

employees within these branches. If there was an abundance of willing participants, a random selection was made to retain 12 employees from each level. Participants in the interviews may have come from various departments of the company's branches in the sample, with the selection of interviewees being as random as possible to aid in the effectiveness and comprehensiveness of the information gathered. This series of interviews was completed between 10 and 18 June 2024.

This study strictly adhered to the necessary ethical standards throughout the research process. Before conducting the survey and interviews, approval was obtained from the relevant ethics committee to ensure compliance with institutional and legal guidelines. Informed consent was obtained from all participants, with the research team clearly explaining the purpose of the study, the procedures involved, and the rights of the participants, including the right to withdraw from the study at any time without any conditions. Participants were also informed that their responses would be kept strictly confidential, and any identifying information would be anonymised to protect their privacy.

The study followed the principle of voluntary participation, ensuring that all participants fully understood the nature of the research and voluntarily participated without coercion. The collected data was securely stored, and access was restricted to the research team, ensuring participant confidentiality. Additionally, the interview transcripts and survey data were archived according to institutional guidelines and relevant data protection laws, with sensitive information redacted to prevent any potential confidentiality breaches.

This study adhered to high ethical standards by obtaining the necessary ethical approvals and ensuring informed consent, protecting the rights and privacy of all participants involved.

3.5.2 Interview Design

The interviews aimed to comprehensively understand the company's promotion system and the main factors affecting promotion from the employees' perspective. This method gave an in-depth understanding of complex phenomena through flexible yet structured exchanges from the participants' subjective viewpoints. The semi-structured interview questions include:

- (1) How long have you been working for the bank?
- (2) What is your current position?
- (3) What role do you think educational attainment has played in your career development?
- (4) Do you know any of your colleagues who have been promoted due to their educational background connections?
- (5) Do you think employees with higher education are more likely to be promoted?
- (6) Have you furthered your education since joining the bank? If so, how do you think this has affected your promotion?
- (7) How much do you think furthering education while serving the bank helps employees in one's career development?
- (8) Does the advantage of educational attainment at your level help in your current job? In Which?
- (9) Apart from educational attainment, what other factors do you think may influence the promotion of employees? Which of these factors do you think is more important compared to educational attainment?
- (10) Do you know of any of your colleagues who have the same or similar educational background as their immediate supervisor within the department? Do you believe that the same or similar educational background has provided them with intangible assistance in their promotions?

(11) Do you think there is explicit or implicit gender discrimination in the promotion of positions in the company?

3.5.3 Data Collection Process

The interviews were conducted using a semi-structured framework, which included preset questions and topics that respondents could voluntarily discuss. Respondents decided whether to participate after receiving these details. The interviews centred around fixed questions and expanded based on the respondents' willingness. They were conducted in a comfortable and relaxed environment chosen by the respondents, such as cafes or spare offices. The interviews were scheduled within a month after the respondents confirmed their participation. Each interview lasted 1.5 to 2 hours and was recorded with audio equipment. Respondents were informed about the recording and signed a document to express their informed consent.

3.5.4 Data Recording and Organization

The interview content was recorded and transcribed to ensure authenticity and completeness. Each interview was transcribed verbatim, capturing all verbal responses and significant non-verbal cues. The transcripts were then reviewed for accuracy and clarity, with any ambiguities clarified by referring back to the original recordings.

To maintain confidentiality, all transcripts were anonymised, removing any personal identifiers. The anonymised data was then organised systematically, categorising responses according to the key themes identified during transcription. This organised data was stored securely in a digital database, accessible only to authorised researchers.

By maintaining detailed records and organizing the data systematically, the researcher ensured that the qualitative data was reliable, comprehensive, and ready for thorough analysis.

3.5.5 Data Analysis Methods: Content Analysis

This study employed qualitative content analysis to analyse the interview data, aiming to explore key factors related to promotion mechanisms within state-owned enterprises. The core principles of this methodology align with the systematic and replicable characteristics outlined by Krippendorff (2013). Content analysis is highly effective for handling large volumes of qualitative data, providing a structured framework to systematically identify, analyse, and report recurring themes and patterns. This approach enables the data to be meaningfully summarised and organised. It also ensures an objective analysis of participants' subjective experiences, allowing the research to genuinely reflect the actual viewpoints of employees across different hierarchical levels.

Firstly, the researcher meticulously transcribed all interview recordings and reviewed the resulting text to deeply understand its content and context. To facilitate a precise analysis, the transcribed text was imported sentence-by-sentence into a Microsoft Excel spreadsheet, with each sentence serving as an independent unit for analysis. Concurrently, the researcher repeatedly read and initially scrutinised the imported text to become thoroughly familiar with the data and to gain a preliminary sense of the viewpoints and emotional tones it conveyed.

Subsequently, the researcher performed a meticulous sentence-by-sentence coding of each statement within the Excel spreadsheet. This process was akin to Open Coding, where the core viewpoints, latent meanings, and emotional tones expressed in each sentence were extracted and labelled. These initial codes were then logged into the Excel document. For instance, when statements referenced ‘the influence of educational attainment’, ‘factors affecting promotion’, or ‘gender differences’, they were directly labelled with corresponding codes, and any distinct emotional leanings were also recorded.

Next, the researcher undertook a categorisation and integration of the generated initial codes (Axial Coding). Codes sharing similar or related meanings were grouped under more overarching Themes. For example, if multiple participants mentioned ‘an implicit educational attainment threshold for promotion’ or ‘educational attainment impacting promotion expectations’, these distinct labellings were consolidated under the theme of ‘Educational Attainment Influence’. Each thematic group underwent further review by the researcher to ensure internal consistency, and where necessary, broader themes were refined and merged. To assess the prevalence of these themes and viewpoints, the researcher counted the frequency of occurrence for each theme or broad category of viewpoints, thus identifying commonly held opinions among the participant group.

The ensuing analysis was not merely limited to frequency statistics but placed greater emphasis on the in-depth interpretation and elucidation of each theme. The researcher paid particular attention to contrasting views and unique explanations embedded within the data. Where starkly different perspectives on the same issue emerged, these opposing viewpoints were specifically highlighted and analysed to present the problem’s complexity and diverse angles. Simultaneously, unique yet profoundly insightful or novel explanatory viewpoints also received particular focus and labelling. Through this process, the promotion mechanisms within state-owned enterprises became significantly clearer, particularly regarding the role of educational attainment and its interaction with other factors such as gender and social networks, thereby illuminating the intricate nature of the promotion system within state-owned enterprises.

3.6 Ethical Considerations

The study secured ethical approval, from the University of Stirling's Ethics Committee and adhered to ethical standards to ensure fairness, transparency, and the

protection of participants' rights. Before data collection, all participants were provided with detailed information about the study's purpose, methods, risks, and benefits, and written informed consent was obtained, ensuring voluntary participation and informed consent.

All data were anonymised and stored in encrypted databases, accessible only to authorised researchers. The data was used solely for research purposes, and the research findings did not reveal any information that could identify participants.

Throughout the research process, participants could withdraw at any time without providing any reason and without negative consequences. Contact information was provided so that participants could contact the researcher if they had any questions or needed further information. Considering the sensitivity of interview topics, the researcher offered participants psychological support.

3.7 Reliability and Validity

3.7.1 Reliability and Validity of Empirical Research

The purpose of the research design was to ensure the reliability of the questionnaire data. The researcher implemented a series of quality control measures. These measures included thorough checks at every stage of questionnaire collection and data gathering to ensure the consistency and stability of the research data. Additionally, the researcher verified the data's stability through repeated measurements and cross-checks, ensuring the collected information's representativeness and credibility through reasonable sampling methods and a rigorous validation process.

Furthermore, when analysing the data, the researcher employed methods such as truncation handling and heterogeneity analysis to test the validity of the research data.

3.7.2 Reliability and Validity of Interview Research

To ensure the reliability of the interview data, the researcher implemented a series of quality control measures. These measures included multiple cross-checks during the transcription and analysis to ensure data consistency and stability. Additionally, through repeated coding and cross-validation, the researcher verified the stability of the interview data and ensured the credibility of the collected information through a rigorous data validation process. To ensure the validity of the data, the researcher conducted thorough reviews and verifications during the data collection and analysis process to guarantee the authenticity and relevance of the data. Moreover, systematic record-keeping and detailed documentation ensured the transparency and traceability of the data handling process. These measures ensured the validity of the study's interview data and supported the research conclusions' reliability.

3.8 Research Limitations

3.8.1 Causality vs. Correlation: Addressing Methodological Limitations

Although this study provides valuable insights into the promotion mechanisms of employees in state-owned enterprises, several significant limitations warrant acknowledgement. A fundamental constraint stems from the cross-sectional nature of the core data. While statistical results indicate significant associations among key variables, it must be emphasised that correlation alone is insufficient to establish causality. As Antonakis et al. (2010) contend, statistical relationships in non-experimental designs are frequently confounded by endogeneity issues. Research by Shadish et al. (2002) further specifies that causal inferences require three core conditions: cause preceding effect (temporal precedence), elimination of rival explanations, and evidence of underlying mechanisms. However, the static character of

cross-sectional data inherently impedes verification of these conditions – for instance, promotion expectations may conversely motivate employees to pursue higher educational attainment (reverse causality), or unobserved variations in employee competence may simultaneously influence promotion outcomes (omitted-variable bias). Given the difficulty in eliminating such alternative explanations with cross-sectional data, the findings should be interpreted as evidential associations rather than definitive causal relationships. Future verification of causal efficacy necessitates longitudinal tracking or quasi-experimental designs.

3.8.2 Sample and Data Collection Limitations

Despite providing valuable insights into the promotion mechanisms of employees in state-owned enterprises, this study has several limitations. Although the researcher designed and adopted a stratified random sampling method, the representativeness of the sample is still limited and may not fully represent the entire target population. If the proportion of participants from specific regions or departments is low, it could lead to an imbalance in the sample. Moreover, as the data were mainly collected through questionnaires and interviews, participant biases and memory errors may affect the authenticity and validity of the data, particularly for interview data, which are more likely to be influenced by personal factors. Additionally, the data collection was conducted within a specific period, and the results may not reflect long-term trends.

Regarding research design, due to resource and time constraints, this study covered only some potential factors influencing employee promotion, such as personal background, job performance, and organisational culture. Although semi-structured interviews can partially supplement these factors by providing in-depth qualitative data, the depth and breadth of the interviews may be limited and may only cover some relevant topics. Future research can improve in these areas to gain a more comprehensive understanding of the promotion mechanisms.

3.9 Summary

This chapter details the research methodology, including the design and implementation of the questionnaire and interviews. The researcher has established a robust foundation for analysing and presenting results in the following chapters by employing a stratified sampling method and ensuring data validity through various checks.

4. Chapter 4: An Empirical Evidence

This chapter validates the research hypotheses developed from extensive literature research and theoretical framework studies in the earlier sections. It conducts a rigorous statistical analysis of the information collected from survey questionnaires, revealing some statistical characteristics exhibited in corporate promotions. Through statistical evidence, this chapter validates the research hypotheses previously proposed.

4.1 Research variables

In conducting the quantitative analysis, the primary explanatory variable in this study is whether the employees are promoted or not, and the primary explanatory variable is the education factor. This study simplifies the assignment of the education factor; the initial education is divided into three categories of speciality and below, undergraduate and prestigious undergraduate, of which the undergraduate institutions are divided into ordinary undergraduate and prestigious undergraduate according to whether they are Project 985 and Project 211 institutions; the final education is divided into four categories of associate bachelor's degree, bachelor's degree, master's degree and doctor's degree, and at the same time whether to obtain the final educational attainment before joining the job is used as a variable.

“985” and “211” universities have been chosen as prestigious institutions because, on the one hand, they originated from the Chinese government's initiative aimed at improving the global status of Chinese universities, and this initiative has been successful, and on the other hand, because the job market recognised both types of universities. Over the years, through sustained efforts and substantial investment, universities within China's “985” and “211” projects have achieved remarkable levels of excellence. Notably, as the flagships of the “985 Project”, Tsinghua University and

Peking University have consistently ranked among the top universities globally according to QS World University Rankings.

Considering exploring the impact of educational background on promotion, this study has selected two variables: ‘Similar educational background to direct supervisor’ and ‘Identical educational institution as direct supervisor’. The first variable, ‘Similar educational background to direct supervisor’, refers to employees having the same major as their direct supervisors, indicating that both the employee and supervisor have undergone similar educational experiences, potentially leading to shared traits or values in certain aspects. The second variable, ‘Identical educational institution as a direct supervisor,’ means that the employee and the direct supervisor graduated from the same institution. This alum relationship is often regarded as a significant social network, which could facilitate the employee's promotional prospects.

The geographical advantage of educational background, as a significant dimension in studying the impact of education on career promotion, was thoroughly explored in this research. In China, the alma mater of an employee often forms a significant social influence in its location, which can be a potential factor affecting promotions and may even have a direct practical impact on enterprises. Therefore, this study selects “graduating from an institution located in the same province as the company” as the variable representing geographical advantage. This choice is based on several considerations:

Firstly, historical factors have shaped the distribution of educational resources in China, which is primarily organized by province. Particularly during the first major reorganisation of universities in 1952 following the founding of the People's Republic of China, the central government allocated universities nationally using provinces as the fundamental units while balancing China's seven major geographical regions. Secondly, the funding for most universities primarily comes from the provincial governments,

although some are directly funded and managed by departments under the State Council.

Additionally, provinces in China serve not only as units for the distribution of educational resources but also as primary cultural divisions. The customs and culture within each province are strongly uniform, making provinces often considered independent cultural entities. These factors justify the definition of geographical advantage as the connection between the alma mater and the enterprise's location at the provincial level. This reflects the regional distribution of educational resources and highlights cultural continuity, providing a significant perspective when analysing the impact of educational background on career advancement.

Performance factors are commonly viewed as critical determinants of career advancement. In this study, performance is incorporated into the analysis of the impact of educational background on promotion, aligning with conventional practices for examining factors influencing career progression. Specifically, the chosen performance metric is the average job completion rate, defined as the annual average completion rate at the employee's current job level. Despite the varying nature of work across different bank departments, the job completion rate is a universally applicable metric—selecting this metric as the performance variable is both practical and feasible.

Because these data are mostly dummy variables, this study used a multivariate logistics model for regression analysis. The research variables in this study are presented in Table 1.

Table 2 List of variables

Variant	Notation	Assign a value to something
Promotion or non-promotion	Pro	1 for promotion, 0 for non-promotion
Initial education	Ini	0 for specialised and below, 1 for undergraduate, 2 for undergraduate from a prestigious university
Final educational degree	Fin	0 for less than a bachelor's degree, 1 for a bachelor's degree, 2 for a master's degree and 3 for a doctorate degree
Educational background overlaps with the immediate leader	Overlap	Same graduation institution as the immediate or more senior leader, yes 1, no 0
Similar educational background to the immediate leader	Similarity	Same major as an immediate or more senior leader, yes 1, no 0
Upgrading of educational attainment during the term of office	Upgrade	1 for yes, 0 for no
Educational Background Geographic Advantage	Location	If the graduation institution is in the same province as the place of work, 0 otherwise.
Years of service at this level	Tenure	Continuous variable, rounded to the nearest integer
Distinguishing between the sexes	Gender	1 for women, 0 for men
Average work completion rate	Capacity	Continuous variable to two decimal places
Post promotion level	Level	Promotion from general staff upwards, with the figure increasing by 1 for each step upwards, initially by one and eventually by 4.

Based on the sample's prevalence of scatter variables and the binary dependent variable, this study adopts a multivariate logistic model for regression analysis. Based on the previous assumptions, the model underlying this study is:

$$\text{Promoted} = \beta_0 + \beta_1 \times \text{Ini} + \beta_2 \times \text{Fin} + \beta_3 \times \text{Upgrade} + \beta_4 \times \text{Tenure} + \beta_5 \times \text{Overlap} \\ + \beta_6 \times \text{Similarity} + \beta_7 \times \text{Gender} + \beta_8 \times \text{Capacity} + \epsilon$$

In testing Hypothesis 3, the samples were grouped according to their levels, and regression tests were conducted separately to compare the sensitivity of the education factor in promotions at different levels. In testing Hypothesis 6, the sample were grouped according to gender and regression tests were again conducted to analyse the differences.

Table 3 Research Hypotheses and Corresponding Variables with Analysis Methods

Hypothesis No.	Hypothesis	Key Variables
Hypothesis 1	Within state-owned enterprises, there is a positive correlation between employee promotion and the education factor, and the higher the employee's initial and final education, the easier it is to get promoted.	Ini Fin
Hypothesis 2	Further upgrading educational attainment after joining a state-owned enterprise will help employees get promoted.	Upgrade
Hypothesis 3	The effect of educational attainment on promotion is more significant in lower-level promotions.	Ini Fin Level
Hypothesis 4	The more similar the educational background of the supervisor, the higher the employee's promotion probability.	Similarity Overlap
Hypothesis 5	The closer an employee's graduation institution is to the place of work, the higher the probability that the employee will be promoted.	Location
Hypothesis 6	The promotion of female employees is more significantly affected by educational attainment than male employees.	Ini Fin Upgrade Gender

4.2 Empirical analyses

4.2.1 Descriptive statistics

In response to the content of the research hypothesis, this study takes a large state-owned bank as a research sample. A questionnaire was issued to this enterprise's branches and business departments, which does not involve sensitive information such as personal identity and whether filling in the actual content is voluntary. This questionnaire randomly investigates the information related to the employees.

In this research, 2,100 questionnaires were distributed to examine the impact of educational factors on employee promotions across four hierarchical levels. The

effective response rate was 69.38%, corresponding to 1,457 validly returned questionnaires. These questionnaires were organised into four groups according to promotion levels: Group 1 comprised ordinary employees promoted to deputy section level, Group 2 included deputy section to section level promotions, Group 3 involved section to deputy division level promotions, and Group 4 encompassed deputy division to full division level promotions. The returns for each group were as follows: Group 1 had 784 out of 1,050 distributed (74.67%), Group 2 received 385 out of 420 (91.67%), Group 3 accounted for 195 out of 210 (92.86%), and Group 4 saw 93 out of 105 (88.57%).

The distribution and return rates across these groups effectively reflect a high level of engagement and maintain the targeted descending ratio of approximately 8:4:2:1, which is identical to the planned distribution ratio. This pattern demonstrates decreasing returns as promotion levels increase, providing a robust dataset for analysing promotion dynamics within the organisation. The comprehensive data collected are detailed in Table 4, which presents the descriptive statistics, and Table 3, which outlines specific promotion information for each group.

Table 4 Statistics on promotions and non-promotions by group

Level	Not promoted	Promoted	Total
1	367	417	784
2	134	251	385
3	118	77	195
4	65	28	93

Table 5 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
pro	1,457	0.5305422	0.4992377	0	1
ini	1,457	0.8517502	0.7974797	0	2
fin	1,457	1.528483	0.7076252	0	3
overlap	1,457	0.1022649	0.3031004	0	1
similarity	1,457	0.3081675	0.4618947	0	1
upgrade	1,457	0.3061084	0.4610336	0	1
location	1,457	0.401963	0.4905095	0	1
gender	1,457	0.4969115	0.5001621	0	1
tenure	1,457	3.980782	1.975026	2	11
capacity	1,457	0.8013864	0.0997194	0.44	1.14

Descriptive statistics were performed on the information collected from the sample, and the results are shown in the table. From this result, it can be seen that the mean value of the initial educational attainment of the sample is 0.852, a value that is slightly lower than the one represented by the general bachelor's degree, indicating that the average initial educational attainment of the sample is around the general bachelor's degree. The mean value of the sample's final educational attainment is 1.53, which indicates that the overall average final educational attainment does not reach the level of a master's degree. The mean values for educational background overlap and educational background similarity are small, indicating that the probability of educational background overlap and educational background similarity occurring in the sample is low. The mean value of educational advancement is 0.306, indicating that a certain percentage of employees in the sample have educational advancement. The mean value of gender is 0.497, indicating that there are slightly more females than males in the sample. The tenure value in the sample ranges from 2 to 11 years, with a mean value of about four years. The mean value of the performance indicator in the sample is 0.80,

and the extreme value of this indicator varies widely, indicating a wide variation in the performance level of the employees in the sample.

The promotion status of each group is shown in Table 5-8. Because the questionnaires distributed were not fully and effectively returned, the number of promoted and non-promoted samples in each group did not fully correspond to the expectation. About 50% of the samples were promoted; the ratio of promoted to non-promoted samples was about 1:1 in Group 1 and about 2:1 in Groups 3 and 4. A significant deviation from the expectation was found in Group 2, where the number of promoted samples was about twice as large as that of non-promoted samples. Still, the data obtained generally met the expectation that the sample provided a sufficient number of promoted and non-promoted samples.

Table 6 Descriptive statistics for groups 1

Variable	Obs	Mean	Std. Dev.	Min	Max
pro	784	0.5318878	0.4993007	0	1
ini	784	0.8456633	0.8073143	0	2
fin	784	1.507653	0.7147007	0	3
overlap	784	0.1058673	0.3078642	0	1
similarity	784	0.2908163	0.4544289	0	1
upgrade	784	0.2869898	0.4526455	0	1
location	784	0.3826531	0.4863449	0	1
gender	784	0.494898	0.5002931	0	1
tenure	784	2.494898	0.5002931	2	3
capacity	784	0.8007398	0.0996595	0.52	1.14

Table 7 Descriptive statistics for groups 2

Variable	Obs	Mean	Std. Dev.	Min	Max
pro	385	0.6519481	0.4769724	0	1
ini	385	0.8311688	0.7705956	0	2
fin	385	1.542857	0.6683758	0	3
overlap	385	0.1168831	0.321699	0	1
similarity	385	0.3168831	0.4658669	0	1
upgrade	385	0.3246753	0.4688627	0	1
location	385	0.4155844	0.4934638	0	1
gender	385	0.4883117	0.5005138	0	1
tenure	385	4.979221	0.8413682	4	6
capacity	385	0.8053506	0.0988235	0.44	1.12

Table 8 Descriptive statistics for groups 3

Variable	Obs	Mean	Std. Dev.	Min	Max
pro	195	0.3948718	0.4900814	0	1
ini	195	0.9282051	0.8026852	0	2
fin	195	1.564103	0.731996	0	3
overlap	195	0.0769231	0.2671552	0	1
similarity	195	0.3538462	0.479393	0	1
upgrade	195	0.3179487	0.4668781	0	1
location	195	0.4769231	0.5007528	0	1
gender	195	0.5538462	0.4983717	0	1
tenure	195	6.020513	1.410414	4	8
capacity	195	0.7927179	0.101404	0.58	1.04

Table 9 Descriptive statistics for groups 4

Variable	Obs	Mean	Std. Dev.	Min	Max
pro	93	0.3010753	0.4612117	0	1
ini	93	0.827957	0.8159238	0	2
fin	93	1.569892	0.7575396	0	3
overlap	93	0.0645161	0.2470017	0	1
similarity	93	0.3225806	0.4699975	0	1
upgrade	93	0.3655914	0.4842059	0	1
location	93	0.3548387	0.4810577	0	1
gender	93	0.4301075	0.4977744	0	1
tenure	93	8.096774	1.877003	5	11
capacity	93	0.8086022	0.1005808	0.52	1

As the promotions studied in this study are hierarchically different, the sample profile in the different promotion tiers is equally important to note. For this reason, descriptive statistics of the samples in different tiers were carried out in this study, and the results are shown in Table 5-8. The mean values of initial and final educational attainment of each group are not very different from each other and are similar to the mean value of the sample as a whole. The mean values of the five variables of overlapping educational background, similar educational background, obtaining educational attainment advancement, geographic advantage of educational background, and average job completion rate differed little among the groups. The mean and extreme values of years of service increased with increasing rank.

4.2.2 Multivariate logistic model analysis

Before carrying out the multivariate logistic model analysis, it is necessary to have a preliminary understanding of the overall correlation of the information obtained on the variables. For this purpose, a Pearson correlation coefficient matrix was generated using stata software and the results obtained are shown in the table. What is evident from the

matrix of correlation coefficients is that the variable of promotion is significantly correlated with other variables, except for the factor of average job completion. In the first column, the correlation between the variables and promotion is positive except for the tenure variable, which has a weak significant level and a small correlation coefficient. The correlations between the explanatory variables are generally not significant, except for the strong correlation between initial and final education, the correlation between the other variables does not exceed 0.2, which indicates that the sample is able to effectively avoid the potential interference that may be caused by covariance.

Table 10 Pearson's correlation coefficient matrix

	pro	ini	fin	overlap	similarity	upgrade	location	gender	tenure	capacity
pro	1									
ini	0.201***	1								
fin	0.258***	0.246***	1							
overlap	0.077***	0.009	0.017	1						
similarity	0.077***	0.007	0.069***	0.025	1					
upgrade	0.076***	-0.196***	0.119***	0.012	0.053**	1				
location	0.090***	0.009	-0.005	-0.009	0.029	0.02	1			
gender	0.101***	0.009	-0.015	0.032	-0.024	0.019	-0.003	1		
tenure	-0.048*	-0.007	0.004	-0.044*	0.046*	0.041	0.025	-0.006	1	
capacity	0.042	0.012	-0.027	-0.038	0.016	-0.042	0.023	-0.024	-0.007	1

The overall regression of the sample using logistic model was done and the results obtained are shown in Table 10. In the regression results, all variables showed some significant level of correlation. The correlation coefficients of initial and final educational attainment are significantly positive, 0.46 and 0.662 respectively, significant at 0.01 level, which indicates a more significant positive effect of the academic factor on promotion, which verifies Hypothesis 1. Achieving an academic

advancement in a position likewise has a positive correlation with promotion, which correlation coefficient is 0.405, significant at 0.01 level, which suggests that an academic advancement has a positive effect on obtaining a promotion. There is a positive effect of educational advancement, which verifies hypothesis 2. Both overlap and similarity of educational background with immediate or more senior leaders show a significant effect on the relevance of promotion, the correlation coefficient of overlap of educational background is 0.516 which is significant at the 0.01 level, and the correlation coefficient of similarity of educational background is 0.285, which is significant at the 0.05 level, and the correlation coefficient of educational overlap is higher than the correlation coefficient of similarity of educational background, which It shows that the educational background of employees and leaders having alumni relationship with the same graduation institution or the same major has a positive effect on the promotion of employees, and the alumni relationship helps the promotion of employees a little bit more, which verifies the conjecture of hypothesis 4. At the same time, it can be found that there is also a positive correlation between educational background geographic advantage on employee promotion, with a correlation coefficient of 0.41 and a significant level of 0.01, which verifies hypothesis 5.

Table 11 Results of multivariate logistic regression for the sample as a whole

Variables	Pro
ini	0.460*** (0.0752)
fin	0.662*** (0.0863)
overlap	0.516*** (0.191)
similarity	0.285** (0.122)
upgrade	0.405*** (0.129)
location	0.410*** (0.115)
gender	0.464*** (0.113)
tenure	-0.0623** (0.0285)
capacity	1.164** (0.566)
Constant	-2.607*** (0.508)
Observations	1,457

Further, this study took a subgroup approach to verify the differences in the promotional role of educational attainment across contexts. The results obtained from the regression of grouping by promotion level are shown in Table 11. It can be found that the results of both groups 1 and 2 show a significant positive correlation between initial and final education and promotion, and the correlation coefficient of group 1 is larger, while group 3 only shows a significant positive correlation between initial education and promotion, while group 4 does not show any significant correlation between education and promotion, and also the academic advancement is able to show a significant positive correlation on promotion in group 1, while in the other groups it does not have significant correlation. These results indicate that the positive effect of

educational attainment on promotion is more pronounced at lower levels of promotion, validating Hypothesis 3.

Table 12 Regression results grouped by promotion level

Variables	Level=1	Level=2	Level=3	Level=4
ini	0.652*** (0.106)	0.283* (0.161)	0.665*** (0.219)	-0.179 (0.355)
fin	0.920*** (0.125)	0.867*** (0.190)	0.150 (0.230)	-0.0645 (0.361)
overlap	0.306 (0.264)	0.568 (0.393)	0.407 (0.582)	1.671* (1.008)
similarity	0.318* (0.176)	0.514** (0.259)	-0.0197 (0.340)	-0.150 (0.567)
upgrade	0.493*** (0.189)	0.295 (0.271)	0.443 (0.359)	0.784 (0.554)
gender	0.361** (0.160)	0.731*** (0.236)	0.493 (0.327)	1.052** (0.526)
location	0.357** (0.165)	0.211 (0.237)	1.105*** (0.329)	-0.201 (0.566)
capacity	0.431 (0.797)	1.676 (1.204)	1.122 (1.614)	5.790** (2.845)
tenure	0.0121 (0.159)	0.124 (0.138)	0.189 (0.118)	0.211 (0.142)
Constant	-2.738*** (0.802)	-3.585*** (1.285)	-4.344*** (1.649)	-7.888** (3.127)
Observations	784	385	195	93

The regression was conducted using gender as the basis for grouping and the results are presented in the table. The regression results show that there is a significant positive correlation between initial and final educational attainment and promotion in both sample groups. In the male sample, the correlation coefficients of initial and final education and promotion are 0.415 and 0.56 respectively, but in the female group, the coefficients of these two variables are significantly higher than those of the male group, with 0.515 and 0.762 respectively, which significantly reflects that there is a significant difference in the degree of influence of educational attainment on promotion in the different genders of the employees, and the influence of educational attainment on

promotion is more powerful in the female than in the male employees. than male employees. This result confirms hypothesis 6.

Table 13 Regression results grouped by gender

VARIABLES	gender=0 (male)	gender=1 (female)
ini	0.415*** (0.101)	0.515*** (0.114)
fin	0.560*** (0.123)	0.762*** (0.123)
overlap	0.222 (0.270)	0.798*** (0.279)
similarity	0.307* (0.168)	0.269 (0.181)
upgrade	0.416** (0.178)	0.401** (0.190)
location	0.428*** (0.160)	0.373** (0.169)
capacity	0.735 (0.774)	1.595* (0.840)
tenure	-0.105*** (0.0406)	-0.0199 (0.0410)
Constant	-1.885*** (0.700)	-2.856*** (0.729)
Observations	733	724

4.2.3 Robustness Tests

A series of robustness checks were conducted to ensure the reliability and validity of the findings presented in this study. These checks are critical for confirming that the observed effects of educational factors on employee promotions are not unduly influenced by model specification, choice of variables, or potential outliers. By systematically varying key parameters and employing alternative methodological approaches, this section aims to demonstrate the consistency of the results across different scenarios and test the sensitivity of the conclusions drawn from the primary analysis.

Conducting grouped regression analysis on samples can test the robustness of overall regression results, a practice widely used in previous studies. As seen from the analysis in the last section, when the sample is grouped by level and gender for regression analysis, the variable of geographic advantage in educational background shows significant differences across gender groups. Specifically, in the female group, the correlation coefficient of the geographic advantage variable is 0.373, reaching a significance level of 0.05; while in the male group, the correlation coefficient is 0.428, achieving a higher significance level of 0.01. This indicates that the positive impact of educational background's geographic advantage on promotion is robust among employees of different genders. Additionally, in the regression grouped by promotion level, this variable shows significant positive correlation coefficients in both Group 1 and Group 3, further demonstrating the robust positive effect of educational background's geographic advantage at different promotion levels. These analysis results provide strong support for validating the robustness of the geographic advantage of educational background across different groups.

By conducting random sampling and performing regression analysis again, the persuasiveness of the original conclusions can be further enhanced. This study used the sampling command built into Stata software, randomly retaining 90% of the original sample to form a new test sample set. Subsequently, logit regression analysis was conducted on this new sample set, with the results shown in Table 13. The significance levels and directions of the correlation coefficients in the new sample set remained unchanged, indicating that variables such as initial education, final education, consistency of educational background, similarity, educational advancement, and geographic advantage of educational background demonstrate high robustness in their positive impact on promotion across the overall sample. These results suggest that even with a slight reduction in sample size, the influence of the aforementioned variables on promotion remains stable.

Table 14 Results of multivariate logistic regression for the new sample

Variables	Pro
ini	0.487*** (0.0805)
fin	0.662*** (0.0910)
overlap	0.503** (0.200)
similarity	0.272** (0.129)
upgrade	0.491*** (0.137)
location	0.448*** (0.122)
gender	0.474*** (0.120)
tenure	-0.0700** (0.0300)
capacity	1.639*** (0.601)
Constant	-2.996*** (0.541)
Observations	1311

When conducting a gender-based grouped analysis on this sample set, there was no significant change in the significance of the correlation coefficients for the main variables. Notably, the relationship between the correlation coefficients for the initial educational level variable changed between gender groups; in the original sample, the correlation coefficient for the female group was significantly higher than that for the male group, whereas in the new sample, this relationship reversed, with the male group's correlation coefficient higher than that of the female group. However, for the final educational level, the relationship between the correlation coefficients remained unchanged across gender groups, with the female group's final educational level correlation coefficient still significantly higher than that of the male group. This indicates that although the influence of initial educational level shows some variability,

the conclusion that education has a greater positive effect on promotion for women than for men remains robust overall.

Table 15 Regression results grouped by gender

VARIABLES	gender=0 (male)	gender=1 (female)
ini	0.501*** (0.108)	0.470*** (0.122)
fin	0.562*** (0.128)	0.764*** (0.131)
overlap	0.264 (0.285)	0.736** (0.289)
similarity	0.326* (0.177)	0.211 (0.192)
upgrade	0.513*** (0.189)	0.454** (0.202)
location	0.430** (0.169)	0.454** (0.180)
capacity	1.284 (0.822)	2.004** (0.888)
tenure	-0.113*** (0.0428)	-0.0303 (0.0431)
Constant	-2.392*** (0.747)	-3.105*** (0.773)
Observations	666	645

The results of the regression analysis conducted on this sample, grouped by promotion levels, are displayed in Table 15. The study shows that the correlation coefficients and their significance are mainly consistent with those of the original sample. Notably, the variable representing final educational level exhibits a significant correlation in groups with lower promotion levels but a weaker correlation in higher-level groups. This finding indicates that the impact of education on promotion is more pronounced at lower promotion levels, supporting the robust conclusion that education plays a more critical role in promotions at these levels.

However, it is essential to note that the correlation of the educational advancement variable was more robust in this regression analysis. Unusually, in the highest-level group (level 4), the correlation coefficient for educational advancement reached 1.3 and

was significant at the 0.05 level, a result not previously observed in earlier analyses. This discrepancy may be due to extreme values in the original sample that obscured this phenomenon or to the small sample size of this group, leading to instability in the regression results.

Table 16 Regression results grouped by promotion level

Variables	Level=1	Level=2	Level=3	Level=4
ini	0.677*** (0.114)	0.363** (0.174)	0.720*** (0.239)	-0.0514 (0.397)
fin	0.974*** (0.134)	0.807*** (0.197)	0.0439 (0.251)	-0.0456 (0.388)
overlap	0.250 (0.281)	0.554 (0.414)	0.442 (0.598)	2.312* (1.320)
similarity	0.312* (0.187)	0.494* (0.272)	-0.0522 (0.368)	-0.455 (0.641)
upgrade	0.533*** (0.203)	0.633** (0.293)	0.532 (0.382)	1.300** (0.634)
gender	0.381** (0.171)	0.737*** (0.252)	0.618* (0.352)	0.620 (0.573)
location	0.365** (0.177)	0.233 (0.252)	1.259*** (0.355)	0.198 (0.599)
capacity	1.192 (0.857)	2.479* (1.278)	0.458 (1.736)	7.311** (3.207)
tenure	0.0532 (0.170)	0.124 (0.147)	0.182 (0.127)	0.281* (0.156)
Constant	-3.537*** (0.872)	-4.246*** (1.377)	-3.855** (1.772)	-10.10*** (3.608)
Observations	698	352	176	85

4.3 Analysis of Interview Results

Sixty employees of this state-owned bank were randomly selected for in-depth interviews during this study's research. Through questions and non-fixed-frame communication during the interviews, this study collects the views of state-owned enterprise employees related to educational attainment and promotions. The employees selected for the study included general, deputy section chief, section chief, deputy director, and director employees, with roughly the same number of people at each level, who were distributed across a wide range of positions in various fields throughout the company. Through the collection of answers to the fixed questions, the researcher got what was required regarding subjects' perceptions, complimented by open questions.

4.3.1 Impact of educational attainment on individual career development

Of the 60 employees who participated in the interviews, 27 had an initial degree of Bachelor's from a prestigious university, 21 had a Bachelor's degree, 29 had a final degree of Master's, and 11 had a PhD. 21 people had upgraded their education during their working life. In line with expectations, more than half of the employees interviewed reported that educational attainment plays a key role in the career advancement of employees, with only a few having no feeling about it. The number of respondents who recognise the positive role of educational attainment in promotion is 53, of which 33 think that educational attainment plays a very big role and 20 think that they play a certain role; 7 think that educational attainment do not play a role in promotion, and the initial educational attainment of these 7 people do not include undergraduate degrees from prestigious universities, and 5 of them have a final educational attainment of less than a master's degree. The number of respondents who believe that educational attainment is helpful for their promotion is 44, and the number

of respondents who believe that the role of educational attainment in promotion occurs around colleagues and leaders is 9.

Summarising the views of the interviewees, it can be seen that the correlation between educational attainment and competence exists in the subconscious mind of most people. Many respondents indicated that they would “think highly of” colleagues with higher educational attainment. Recognition of educational attainment is a common phenomenon in society, as well as in business organisations, where educational attainment are credentials provided to citizens by the school as a social organisation. “In the early stage of employment, educational attainment are an important guarantee of competence, leaders and colleagues do not know a newcomer's situation, and if the person's educational attainment shine, I (meaning leaders and colleagues) will have higher expectations of him.” An interviewee put it this way. The fact that educational attainment represents competence is not just expected but is also a personal experience for many. One department head stated, “My master's degree opened many doors for me in the early stages of my career.” They believed that a higher degree not only means deeper expertise but also a more remarkable ability to solve problems and adapt to change. Their view was widely echoed by other respondents. Nearly 20 interviewees said that they found colleagues and leaders around them demonstrated the linkage between educational attainment and competence, and a few others said that they were party to this linkage phenomenon. A senior employee in the enterprise said: “Once my department had successive leadership changes, the leaders were older and less educated, and they did not bring about an improvement in the department's performance. Then a department head was transferred, they was a bachelor's degree graduate from one of the top universities in China, joined the company after graduating with a master's degree, his ability was significantly stronger than the previous ones, and his arrival brought great changes to our department.” She stated that the improved performance of her department and the fact that she was able to get promoted were closely related to this

highly educated supervisor, which convinced her that education equals competence. Similarly, one interviewee mentioned her own situation. “I joined with four colleagues and out of the five of us only one colleague and I were undergraduates from a reputed university and the other three were undergraduates from ordinary universities, and at the end of the year my colleague who was a graduate from a reputed university and I had the best performance out of the five,” he said.

Understanding the relationship between education and competence from a human capital perspective will explain these phenomena well. From the information provided by the interviewees, it can be learnt that companies provide platforms for their employees to demonstrate what they have learnt, which allows the human capital accumulated by the employees due to their education to be transformed into economic benefits in a very effective way, and allows the employees to utilise their competencies in order to get promoted. The competence enhancement brought about by education may be varied, with a number of interviewees stating that higher education and a longer educational experience have allowed them to hone better computer use and writing skills, which has allowed them to complete their work more efficiently; several interviewees stated that members of their teams with higher education usually show better adaptability and teamwork; and one interviewee mentioned the fact that her richness of her experience as a student has helped her performance in the company, and these university experiences are related to the fact that the city where she graduated often hosts large-scale events, and also because her graduating schools are two of the most well-known universities in the area, which often gives her the opportunity to participate in the basic organisation of large-scale events. Educational background affects not only the length of time employees are educated, but also the opportunities they have access to, which influences the quantity and quality of human capital accumulation.

In researching the impact of educational attainment on the career development of employees at state-owned banks, one interviewee, referred to as “A,” provided a compelling example demonstrating how higher education significantly aids individuals in achieving career advancements and securing promotional opportunities. A, aged 32, serves as the head of the general office department at the bank. Her career advancement over the seven years since she joined the bank exemplifies the substantial returns on educational investment. A completed her Bachelor's degree in Business Administration at a top 985 university in China, where she participated in multiple internships and projects related to the industry. These experiences not only enhanced her practical skills but also helped her establish a professional network early on.

A reflected on the positive impact of her educational background on her career development: “University education laid a solid foundation for my professional abilities. During my time at university, the project management and financial analysis tasks I engaged in seemed ordinary at the time, yet they became crucial skills for handling complex tasks once I started working at the bank.” Additionally, she pursued a master's degree in business administration at another renowned 985 university, where she gained new knowledge and theories, broadening her professional horizon. They emphasized, “During my master's studies, I encountered advanced management theories I had not been exposed to before, and the interactions with peers from various industries greatly expanded my professional network. These new connections were immensely helpful when I sought promotions.”

After graduating, A joined the general office department of the state-owned bank. Leveraging her outstanding educational background and professional capabilities, she quickly stood out in her department and achieved several promotions within a few years, eventually ascending to the rank of a senior manager. Discussing the impact of education on her career progression, A noted, “During the promotion process at the bank, I found that my higher education often gave me an advantage over many

competitors. My educational background not only enhanced my professional skills but also earned recognition from the management.”

In stark contrast to A is her colleague, referred to as “B,” whom A described to us. B's educational background is more modest, holding a Bachelor's degree in accounting from a local university. Despite B's excellent performance at work, he frequently encountered obstacles during promotion processes. B shared his experience with A: “Despite my hard work and outstanding performance, I often find myself at a disadvantage in promotion processes due to my lower level of education, which limits my opportunities for advancement.”

Educational attainment affects not only the competences of employees when they join the organisation, but also the build-up of their competences after joining the organisation. The reason for this difference is usually the extra security of trust and reputation that comes with educational attainment, which leads to unequal opportunities. Eleven interviewees said that they received more recognition than they expected from their immediate supervisors after joining the organisation because of their academic advantage, and a further nine said that they had been bystanders to this phenomenon. “Because my undergraduate institution was one of the top two in China, my department head thought I could do any job for a long time after I joined,” said one respondent. “I was always assigned jobs that I was not good at, which distressed me, and after I reacted to my supervisor about my confusion, I realised that he recognised me to a degree that I could not understand. Of course, this experience also provided more opportunities to build up my competence and I was given more work and promoted faster than my colleagues.” This respondent indicated that his educational attainment contributed to his promotion and his experience is representative. From the experiences of the interviewees, the excess trust that comes with educational attainment is usually centred on the first days of employment, and this wanes on reaching higher levels. The reasons for this weakening were provided by several respondents. Five respondents indicated

that after reaching his current level, there is not much difference in the educational attainment of competitive colleagues within the same level. Three interviewees offered similar views, arguing that an increase in the level of the job would lead to an increase in the homogeneity of the job, that the higher the level of the job, the greater the proportion of managerial competence among the competencies required, and that the differences in competencies brought about by differences in educational attainment were no longer significant when the managerial competence of colleagues in the same rank had been greatly enhanced with the increase in their work experience.

Educational attainment allows employees to gain excessive trust, is the graduate school to provide employees with social capital, this social capital is very good to improve the operational efficiency of the enterprise, to a certain extent, to help managers to find more worthy of training employees, in this process educational attainment are more like a “filter” or “signalling”. In this process, education is more like a “filter” or “signal”. Of course, sometimes this kind of trust may be both the result of the more competitive ability of the staff, or may be the reason for the staff to bring the ability to improve, in any case, this kind of positive feedback results in both the enterprise and the staff to get what they want to get, although this kind of trust brought about by the unequal opportunities may be a sense of potential discrimination against the staff with more common education. The manifestation of the role of social capital in employee promotion may go beyond this. One of the interviewees, a middle manager, said, “In an organisation, your ability and performance are of course important, but social resources and connections are even more important. Sometimes, these relationships can help you get more opportunities and resources to advance your career.” His views are representative of the vast majority of interviewees, many of whom lamented the importance of relationships in their interviews. Relationships are broad social relationships, but in the context of promotion, this specifically refers to relationships that contribute to an individual's career development. Putting aside innate

factors such as family, university is an important factor in the establishment of acquired relationships for individuals. A number of respondents emphasised the attributes of university as a social place. Naturally, one's classmates in college are potential social contacts, and the confined spaces that college provides for students to interact in will provide more possibilities for them to build closer relationships - such as dormitories and classrooms. A number of respondents indicated that they met their second-best friends in college, and further, nearly two dozen respondents mentioned friends they made in college that helped them directly or indirectly in their careers. Another factor that should not be overlooked is that the teachers within the school are the direct social resources that the university provides to its students. Teachers are different from their classmates in that the classmates one befriends as a student are usually potential social resources, whereas teachers are direct resources who already have work experience and social reputations, and the stronger ability to translate economic benefits makes the social relationship between students and teachers an important part of the accumulation of social capital by students at school. And by the time they reach the graduate level - i.e., the stage of pursuing master's and doctoral degrees - students and their instructors will have formed a much closer association of interests due to the mentorship system, a state of association that may often continue for some time after graduation. In the interviews, nearly twenty respondents had the experience of having a faculty member from their graduating institution recommending a job for them at the time of graduation; of the 46 respondents with master's and doctoral degrees, only seven said that they no longer stayed in touch with their supervisors after graduation, while 18 said that they still stayed in close contact with their supervisors.

It is not only the classmates and teachers that students come into contact with as a result of teaching and learning activities, but universities are also able to provide students with socialising activities, which are equally important avenues for the extension of social networks. From the interviewees' descriptions, it can be seen that the

level of socialising opportunities provided by the university is influenced by the level of the institution. Interviewees from prestigious universities were always able to talk about large-scale events organised by the university, and many of them were happy to participate in these events, either to gain more contacts or simply to enjoy the social activities, but in any case, they had extended their social networks through the events. An impressive number of interviewees said that they had benefited from these types of social events, with one interviewee stating directly that, “ I handled a few big deals in the six months after I first joined the organisation by relying on friends I met at university events, and even though this was unsustainable, it did provide an immediate and huge help in getting my career off to a good start. “ The rewards from social capital are varied, with a number of interviewees providing more unique examples. Similarly, the opportunities to engage in social activities that can be gained at different stages of educational attainment vary, and just as companies often use final educational attainment as a basis for CV screening, higher educational attainment can sometimes provide higher-end social occasions, the prime example being academic conferences, a social occasion that is usually insulated from undergraduate students. “When I was studying for my PhD, those social events made me realise that my past experiences were lacking”, said one head of department during the interview. A number of interviewees echoed similar sentiments about their experiences of enhancing their educational attainment, and they all expressed gratitude for the networking boost they received during their time in school.

In the interviews, some interviewees with high educational attainment mentioned some phenomena of psychological implication due to educational attainment. One interviewee said, “Due to the long period of study, after I graduated and joined the workforce, many of my classmates from my undergraduate studies had already made achievements in their careers, which made me anxious and gave me a lot of motivation.” Several respondents expressed similar anxieties, and similarly, there were respondents

who felt that a higher degree gave him higher expectations for his own career, and that this intangible pressure, while contributing to a positive work ethic, also reduced the satisfaction he felt when he received a promotion.

In this series of interviews, it was found that many highly educated employees expressed that compared to peers with lower education who entered the workforce earlier and subsequently climbed the career ladder faster, they felt their achievements were not sufficient, leading to heightened anxiety. This anxiety is not without consequences, as it can severely impact job performance and overall job satisfaction. This psychological state leads to a continuous cycle of dissatisfaction, where employees' high expectations keep them in a perpetual state of seeking more, often without taking time to appreciate the successes already achieved. However, this is not entirely negative, as it also motivates employees to achieve more in their work and somewhat facilitates the promotion of highly educated employees.

The evolving nature of state-owned enterprises, especially during reform and modernization phases, makes it necessary to reassess the role of educational level in career development. As these organizations strive to improve efficiency and global competitiveness, the demand for highly educated talent is also increasing. This change may raise expectations and pressure these individuals to perform at higher standards. Leadership within these organizations must recognize these dynamics and implement support systems that can alleviate psychological impacts while fully leveraging the potential of highly educated employees. In the interviews, a department head stated, "During the reform process of state-owned enterprises, the improvement of management personnel quality is inevitable, which will lead to a continuous increase in the overall educational level of management, and this trend should become even more apparent in the future." Several other interviewees expressed the same sentiment, indicating that today's state-owned enterprises urgently need new highly educated talent

to fill management positions, meaning that highly educated employees will receive more attention during promotions.

From both perspectives, improving human resource management in state-owned enterprises requires a two-pronged approach: on one hand, aligning educational achievements with realistic career prospects and promotion opportunities to better develop highly educated talent, and on the other, providing appropriate support systems such as guidance and counselling to manage the expectations and resulting pressures faced by highly educated employees. This not only improves job satisfaction but also helps create a more stable and productive organizational environment.

4.3.2 Enhancement on educational attainment and job promotion

More than half of the respondents gave a positive view on the impact of obtaining academic advancement during their employment on their careers. “It (enhancement on educational attainment) certainly has an effect,” was the answer given by many respondents when they heard this question. 21 of the 60 respondents had experienced academic advancement in their positions. Without exception, they were all satisfied with the results of their educational attainment enhancement, both in terms of competence and in terms of help with promotion. One middle manager who completed an MBA while in the workforce shared his experience, “After completing my MBA, I found that my skills in problem solving, teamwork, and strategic planning improved significantly. This not only strengthened my self-confidence, but also made me more competitive in the workplace.” He believes that academic upgrading has not only led to an increase in knowledge and skills, but has also opened up new possibilities for his career. An MBA was the choice of many respondents, which may be related to the nature of work in the organisation, with nine respondents getting an MBA. Of course, there are other directions for academic advancement. One respondent working in technology chose to pursue a computer-related degree, saying, “Although I have a solid foundation in technology, both competence and a degree are necessary to advance

further in the workplace, and upgrading my educational attainment will undoubtedly provide a stronger guarantee for my competence.” Others among the respondents chose a more specialised and niche direction of study. An employee in the finance department furthered her studies with a master's programme in financial management and was successfully promoted from a junior staff member to a department manager. She says, “The educational attainment enhancement has provided me with deeper expertise and a broader business perspective. I can better understand and analyse complex financial issues and provide strong support for the company's decision-making.” Many respondents with similar experiences mentioned the value of the educational attainment enhancement experience, from which they all gained competence and helped with future promotions. This suggests that academic upgrading has a clear effect of building human capital.

In our interviews, respondents generally agreed that upgrading their educational attainment not only brings growth in terms of knowledge and skills, but also plays an important role in the accumulation of social capital. In this regard, interviewees who earned an MBA provided many descriptions. “The experience allowed me to build a large professional network of classmates and professors from all walks of life, a network that became an indispensable resource in my career. I developed many clients from it, which greatly improved my performance.” One department head interviewed put it this way. Similarly, many of the interviewees' experiences corroborate the enhancing effect of academic advancement on social capital, and it is clear that academic advancement is an important extension of social networks. The 21 interviewees who had the experience of further education talked about the difference between further education after joining the labour force and the educational experience before joining the labour force. 17 of them coincidentally said that they were more purposeful and efficient when they pursued further degrees after joining the labour force. One respondent said, “I never had a strong sense of purpose in my student career before

I started working, and I was often just pushed along by tasks. But after work again taking the initiative to improve my educational attainment, that's when I became incredibly motivated, I knew what I needed to get out of the experience and I was able to get that very efficiently.” Another interviewee felt that he focused more on networking when upgrading his educational attainment after starting his job than he did during his pre-employment schooling, which was not at all something he had thought about when he was not in the workforce. A number of interviewees mentioned the need to expand their social networks when upgrading their educational attainment, with the broader perspective and increased layers of connections that come with higher educational attainment giving them a deeper understanding of the return on social capital.

Of course, many interviewees also gave clear negative views on the role of educational attainment enhancement in workplace promotion. Eight interviewees said that academic upgrading after joining the workplace is not very meaningful, and that promotion is more important in terms of ability and performance at work, which does not depend on academic upgrading. Some interviewees believe that academic advancement is likely to be an involuntary followership, and that such poorly motivated behaviour is often passive and ineffective. “In the office, when you hear that a few of your colleagues have plans to go to graduate school, you might be motivated to upgrade your educational attainment. But if no one mentions it, you may have no intention at all about it, which is not a meaningful behaviour”, said one respondent. Indeed, this phenomenon was confirmed by other interviewees, with five mentioning that their initial motivation for upgrading their educational attainment was related to the upgrading of their colleagues' educational attainment, even though they did not believe that upgrading their educational attainment would be ineffective for promotion. At the same time, there was another strident voice that questioned the usefulness of upgrading educational attainment. Several interviewees mentioned a phenomenon whereby a

colleague was likely to take action to upgrade his educational attainment when there was a greater likelihood that he would be promoted. One respondent commented figuratively, “This phenomenon makes it appear that academic upgrading can help staff get promoted, but in fact it is merely a cover-up for 'getting on the train before buying a ticket'.” He argued that the motivation for this kind of academic upgrading is to make one's promotion more convincing, but in fact it is not a promotion advantage brought about by academic upgrading, but rather a manifestation of what happens when there is already an advantage for promotion. Several other interviewees questioned the role of academic advancement, arguing that this view is a confusion of cause and effect. “People who have the ability to take entrance educational attainment and study for a degree while working are inherently more capable, and it is normal that those who are capable are more likely to be promoted, and this is not because of academic advancement; the underlying reason is that these people are more capable.” This was the view of one of the interviewees, and his remarks are representative of the views of those who hold such views. In conclusion, some of the interviewees expressed some negative views on the role of obtaining educational attainment after joining the organisation in terms of promotion and competence enhancement, and they generally do not quite recognise the role of educational attainment enhancement in terms of improving the competence of the employees, and furthermore do not recognise the role it plays in terms of promotion, and this type of view is also representative of those who hold this type of view.

According to the results of the interviews, employees who pursued further education generally reported that their studies had a significant positive impact on their career development. This impact is twofold: firstly, educational advancement significantly enhances their ability to handle complex problems encountered in daily work, including improving their strategic planning and team management skills. These enhanced capabilities result from exposure to deeper professional knowledge and

management theories during their studies, which are crucial for advancement to higher management levels. Secondly, obtaining a higher degree often serves as a prerequisite or a significant factor in gaining a promotional advantage, thus many employees proactively pursue further education in hopes of advancing their careers. Both aspects together influence the motivation behind employees' decisions to pursue further education and also objectively shape the corporate preferences in selecting candidates for promotion.

However, this relationship is not without controversy. While most respondents acknowledged the positive impact of educational advancement on promotions, some employees emphasized that actual job performance and achievements play a more central role in the promotion process. They argue that although a higher degree may offer theoretical advantages, promotions are ultimately based on the validation of actual job performance and capabilities. Moreover, the social capital built through continuing education plays a crucial role in career development. By pursuing further studies, employees not only expand their professional knowledge but more importantly, they widen their professional networks, gaining access to broader industry resources and information, which significantly enhances their competitiveness in the workplace and opens up new career opportunities. This shows that the value of educational advancement extends beyond the acquisition of knowledge and skills; it also enhances an individual's social capital through expanded social networks.

This comprehensive impact underscores the importance of educational advancement in the modern workplace, affecting not only the pace and quality of individual career development but also the strategic human resource policies and organizational development of corporations.

4.3.3 Differences in the effectiveness of academic upgrading across promotion levels

The question of whether or not the help that educational attainment brings to promotion varies at different levels was enriched by a large number of views and opinions from respondents. This diversity highlights the complex relationship between educational qualifications and career advancement, suggesting that the impact of academic credentials can significantly vary depending on the organisational hierarchy. Of the 53 respondents who believe that educational qualifications are beneficial for career advancement, a substantial portion articulated a noticeable pattern: 30 respondents clearly stated that the influence of academic qualifications is most evident at lower organisational levels and tends to decrease as one moves up the hierarchy. This diminishing effect at higher levels suggests a shift in promotion-influencing factors from more quantifiable educational metrics to more subjective criteria such as experience, performance, leadership abilities, and organisational dynamics.

Conversely, 14 respondents held a contrary viewpoint, arguing that the impact of educational attainment on promotion does not significantly change across different levels. They maintained that educational qualifications play a crucial, continuous role in career progression, independent of an employee's position or seniority within the company. According to this group, academic achievements consistently provide a competitive edge that crucially influences promotional decisions at all levels.

Meanwhile, 9 respondents oscillated between these viewpoints, at times agreeing that the influence of education wanes at higher levels and at other times viewing it as a consistent factor throughout one's career. Their indecisiveness underscores the subjective nature of career progression and how the perceived value of educational credentials can vary based on individual experiences and specific organizational contexts.

Some interviewees felt that in the pre-entry period and at lower levels, there were too many choices available to their superiors and that educational attainment was the easiest factor to make people stand out. One interviewee recounted his personal experience: “With the more than twenty newcomers who joined with me after graduating with a bachelor's degree, my undergraduate institution was significantly higher than the others, which made me stand out from the rest, and the leader who brought me along always addressed me as 'graduated from a certain university,' which got me more attention. “ The recognition that comes with a high degree of education may often have another effect, that of “value highly”. “Value highly” is not simply valued in the sense of importance, but valuing often implies subjective recognition and trust, which can have additional effects. Several interviewees suggested that their own attitudes towards subordinates were influenced by the educational attainment of their employees, especially those who had been on the job for a short time. One respondent summarised it this way: “I would value a new employee with a high level of educational attainment because it is an easy choice, the educational attainment provides them with extra assurance of competence, and I don't need to worry too much about their ability. Even though there is a possibility that their ability will not meet my expectations, it is often not the worst choice.” This respondent understands “value highly” in this way, “Value highly is my first choice when I don't have an answer and my preference when there are other options. It's important to be valued, and being valued makes me shine because I always get more opportunities to show off. In the same way, when I value an employee, I remember that person's bright performance, whereas other employees may not get that kind of attention.” This element of valuing is so important that the interviewees lamented it.

In Chinese culture, being “highly valued” is an essential concept. According to traditional Confucian thought, society is stratified, and each individual forms a hierarchically structured network of personal relationships. The closeness of these

relationships depends on personal attitudes towards others and the closeness of shared interests. Evidently, in the workplace, being highly valued by leaders is crucial for an employee's advancement. The way an employee gains this recognition and esteem from leadership depends on their specific interactions with their superiors and their status within the organization.

Within the organization, when the interrelationships of interests are relatively straightforward, the path to being highly valued is also direct. For instance, for lower-level employees, factors such as personal performance, trust in their abilities, perceptions of their character, and compatibility of personality can directly impact whether they are highly valued by their leaders. However, for employees in higher-level positions, due to the complex interplay of interests, interpersonal relations also become intricate, and displaying competence is not as readily identifiable as in lower positions. Moreover, the diversity of competencies makes evaluating an employee's abilities more challenging. This complexity ultimately makes the process of being highly valued more intricate and may lead to a diminished role of educational qualifications in gaining promotions.

At higher grades, promotion becomes complicated, and while educational attainment is important, it seems that the situation is no longer as homogenous. Many interviewees said that while educational attainment are still relevant, there are so many other elements that are meaningful for promotion that educational attainment are no longer as important as they are at lower grades. "The lower the rank, the simpler the career experience, the closer the individual's competence and educational attainment are; whereas at senior levels, there are so many elements of a career that can be judged, that educational attainment as a factor are thin on the ground." This was said by one respondent, and similar views were received from several others. Conversely, the belief that educational attainment does not play a role in promotion as much as the changes brought about by higher grades tended to lead them to this judgement on the basis of

results. Several interviewees suggested that the promotions they saw happening around them were often that colleagues and leaders with higher educational attainment were more likely to be promoted, so they did not feel the difference.

In conclusion, while educational qualifications are highly valued and can significantly influence early career promotions, their role in career advancement becomes less pronounced at higher managerial levels. This shift reflects the broader trend where personal achievements, strategic contributions, and interpersonal dynamics play increasingly significant roles in career advancement within complex organizational structures.

4.3.4 Gender differences and the effect of educational attainment on promotion

Many of the interviewees provided a great deal of insight into the impact of gender on promotion. As is common in society, many interviewees sensed potential discrimination against women in the workplace. Counterintuitively, however, educational attainment helps women's advancement, not only because of statistics but also because of the personal experience of many interviewees.

A female department head said, "I think, as women, I may need to put in more effort to prove ourselves. A high level of education is strong proof that we can gain recognition from our colleagues and superiors." Other female respondents expressed similar views. Another female department head also shared her views and experience, "In the early stages of my career, I used to feel that as a woman, I needed to put in more effort than my male colleagues to prove my worth. But as I continued to upgrade my educational attainment and skills, I found that feeling gradually changed." She continues, "I earned a master's degree and passed several important industry qualifications. This not only enhanced my professionalism but also my confidence. I started to participate in projects and team activities more confidently and received more recognition and support." This respondent noted that the increased educational

attainment and skills have also helped her to build a more comprehensive professional network. “Through further learning and development, I have had the opportunity to network with a wider range of industry experts and leaders. This has provided me with invaluable learning and development opportunities and helped me build a wider presence in the workplace.” Her experience shows that educational attainment and skills enhancement can help women overcome gender barriers in the workplace and also help them build a wider professional network and social capital, which can lead to more career development opportunities.

In a similar vein, another female department head shared her experience and views, having worked in the company for nearly a decade and grown from a junior employee to a department head. She believes that education played a key role in this process. “My master's degree not only provided me with the knowledge and skills I needed, but it also served as a proof of my competence.” She says, “I noticed that although our company is committed to providing equal career opportunities, women still have to face some additional challenges. In this case, a high level of education becomes a kind of capital for us and helps us win more trust and support.” Higher educational attainment goes some way to helping female staff gain capital against potentially detrimental influences, which may not just be the accumulation of human capital but also the support of social networks and gaining recognition in a broader sense.

Another male senior employee also shared his views on this issue, “I believe that education and skills are important criteria for evaluating a person's ability and value, regardless of gender. In our company, I have seen many female colleagues achieve remarkable professional success through continuous learning and development.” He continued, “I believe we need to continue to promote equality and diversity in the workplace and ensure that everyone has a fair chance to demonstrate their abilities and worth. This is not just a moral issue, but a business issue too. Diversity and inclusion can help us build a stronger, more innovative team.” At the same time, however, it is

worth noting the phenomenon that many of the male respondents were not sensitive to this and did not have a clear perception or feeling about the role of educational attainment in women's promotions.

Some interviewees mentioned that the acquisition of educational attainment is more just than promotion. A female department head shared her view, "In the workplace, especially in some traditional industries, women may face more prejudice and discrimination. But the acquisition of educational attainment is a fair part of the process and it is not affected by gender, age or other factors." Therefore, this respondent believes that by acquiring high educational attainment, women can overcome gender bias in the workplace to a certain extent. Another female respondent made a similar point: "In my experience, a degree has been an 'equaliser'. It has helped me to prove my competence and worth and enabled me to compete on the same starting line as my male colleagues." A male department head echoed this sentiment, "In our company, we value everyone's abilities and contributions. But I have to admit that higher education has somehow helped women to prove themselves better. I have several female colleagues who have excellent academic backgrounds, which makes them more competitive in the workplace."

The emphasis on educational attainment in corporate promotions may be a boon to female employees in terms of promoting fairness in the workplace. One female executive said, "In my opinion, promotion is an opportunity that enables us to demonstrate our abilities and values. I think companies and leaders should pay more attention to women's promotion, which will not only help women overcome gender bias in the workplace, but also help companies explore and utilise women's potential and value." One male respondent said that the positive effect of educational attainment on promotion can help promote gender equality in the workplace. This was echoed by many female respondents.

The support of educational background for the promotion of female employees may stem from multiple influences. Due to historical sedimentation and cultural traditions formed in China over time, women held a lower social status in the late feudal society. They were not expected to undertake societal responsibilities but were mainly confined to familial roles. During this period, women were often seen as appendages to men, with their roles and duties strictly limited within the household, rarely having the opportunity to engage in broader social fields. Moreover, culturally, traditional Confucian ideas that emphasise male superiority and the concept of “husband as the guide” further solidified women's subordinate status. Under such circumstances, women's duties were confined to managing household chores, raising children, and serving their husbands, which strictly limited their professional development. Although the remnants of feudal society gradually faded with the establishment of the new China, some outdated notions still linger in societal attitudes, negatively impacting the career development of contemporary female employees.

Under traditional influences, women typically bear more roles and responsibilities within the family, which may adversely affect their career trajectories, such as restrictions on working hours and the impact of childbirth on employment. This situation can prevent them from fully committing to their careers without family support. However, for female employees with higher education, their average age of marriage and childbirth is often delayed due to their studies, thereby reducing the adverse effects of family factors in the early stages of their careers. The experiences of three interviewees directly support this viewpoint. One female department head shared her perspective, “In my youth, I focused on my studies and career development, which undoubtedly brought advantages to my career. Opting for later marriage and childbirth allowed me more time to prove my capabilities without family pressure. When I decided to start a family, I had already demonstrated my abilities and established a sufficient position within my department.” She believes this strategy enabled her to dedicate

herself fully to her work when she needed to prove herself the most, without the distraction of family affairs. This respondent's experience indicates that highly educated women can engage in more significant projects and achieve promotions without family pressure, a common situation among many highly educated women in similar circumstances. Indeed, all three interviewees reflected on the impact of prolonged education on their marital and childbearing choices and the positive effects of these choices on their work and promotions.

During the interviews, we discussed how to eliminate the impact of gender bias on women's career advancement. Enhancing educational qualifications is seen as an effective strategy. One interviewee shared her experience: "Throughout my career, academic credentials have been crucial in overcoming gender bias. As I advanced my education, I received increasing recognition in the workplace. I believe this is due not only to the degree itself but also to the professional skills and confidence it brings." She noted that higher education opened up opportunities for her to participate in more significant projects, directly facilitating her career advancement. Another interviewee expressed a similar view: "As a woman, I often need to prove myself more in the workplace. However, as I continuously improved my educational level, I felt this pressure lessen, with more focus being placed on my professional abilities rather than my gender."

Moreover, other facilitating strategies were mentioned during the interviews, such as flexible working hours, which might help women better balance family and career, alleviating workplace difficulties. One interviewee exemplified: "In our department, due to the flexible nature of our work, we have implemented a flexible work policy, allowing employees to adjust their working hours and locations according to their family needs. This policy has helped us retain many talented female employees and enabled them to manage their personal lives more effectively without sacrificing career development." Several other interviewees emphasised the importance of building a

positive corporate culture to alleviate women's workplace difficulties. One interviewee explained: "Creating a friendly corporate culture is extremely beneficial for supporting female employees. Such a culture encourages all employees to realise their potential, regardless of gender fully. Our department places great importance on consistently educating employees to treat colleagues equally, which has significantly reduced discrimination against female employees regarding their capabilities and promotion opportunities."

The systematic elimination of gender discrimination in the workplace requires institutional construction and specific arrangements. In this regard, several interviewees offered their insights and suggestions. One interviewee noted that banks currently tend to specify a desired gender for certain positions during recruitment, suggesting that this practice should be further standardised and strictly adhere to the principles of gender equality. Specifically, for the same position, efforts should be made to balance the number of male and female employees recruited, thereby providing equal employment opportunities for women and removing the first potential barrier to their career advancement. Additionally, two interviewees mentioned a phenomenon where men dominate technical departments, resulting in fewer opportunities for female technicians. To address this, it was suggested that efforts should be made to enhance female participation in these areas by providing additional training to women, facilitating their involvement and balancing the male dominance in technical roles, thus helping women overcome gender discrimination in promotions. Furthermore, another respondent emphasised that the fundamental issue is that women are often not viewed as reliable employees on par with men, which prevents them from being assigned the same work tasks as their male counterparts. This requires establishing a fair system for allocating employee responsibilities and ensuring that all employees, regardless of gender, have equal access to job opportunities.

4.3.5 Summary of Interview Results

The interview results show that employees have different views and experiences regarding educational advancement. Most employees believe obtaining higher education has significantly impacted their career development, helping them secure better positions and higher salaries. They believe higher education has given them more career opportunities and room for growth. However, some employees feel that the impact of educational advancement is limited, and they place more emphasis on practical work experience and skills. Most interviewees believe that obtaining higher education has positively impacted their careers, and they shared experiences of improving their capabilities and achieving promotions due to their educational advancement. However, some interviewees are sceptical of the effects of education, arguing that career advancement depends more on work performance and capabilities. This diversity of opinions reflects the varying perspectives on the value of education in the workplace.

Some employees may benefit from the knowledge, skills, and networking opportunities gained through educational advancement, leading them to see its positive effects. Others may emphasise actual work performance and achievements, making them less inclined to value education as highly. Interviewees expressed differing views regarding the impact of education on different promotion levels. Some believe education plays a more significant role in lower-level promotions, while other factors, such as work experience and job performance, are more critical in higher-level promotions. Others, however, believe that education affects promotions at all levels.

Female respondents generally believed that despite potential discrimination against women in the workplace, higher education helps them overcome these barriers and gain more career opportunities. They see education as a “means of equality” that allows women to prove their abilities and value. Some male interviewees shared the same view, believing that education and skills are essential standards for evaluating an individual's capabilities and worth.

4.4 Summary of Empirical Analyses

While the interviews provided valuable insights into employees' varying perceptions of educational advancement and its impact on career progression, validating these qualitative findings through empirical analysis is essential. The previous qualitative findings indicated a range of perspectives regarding the role of education in career advancement, highlighting how some employees view education as a critical factor for promotion while others emphasise work experience and performance. To complement these observations, the empirical analysis in this chapter quantitatively examines the relationship between educational attainment and promotion likelihood in state-owned enterprises.

Building on the research methods introduced in Chapter 3, multinomial logit regression analysis was employed to study the correlation between promotions and educational attainment. Through this statistical analysis, several important conclusions were drawn. First, educational attainment has a significant positive effect on employee promotions, particularly at lower levels of promotion. This finding suggests that while education plays a crucial role in early career progression, other factors may come into play at higher levels. Second, employees who share an educational background with senior leaders were found to have a higher likelihood of being promoted. This highlights the importance of educational networks within organisations, where shared educational experiences create potential opportunities for advancement.

Moreover, the analysis revealed that the proximity of an employee's alma mater to their workplace also enhances promotion likelihood. This finding suggests that geographic factors related to education may also play a subtle but essential role in career progression. Lastly, the results indicated that educational attainment has a more significant impact on promotions for female employees than their male counterparts. This underscores the potential role of education as a tool for overcoming gender-based

barriers in the workplace, especially in environments where women may face additional challenges in career advancement.

In sum, the empirical findings confirm many of the observations from the qualitative interviews and provide statistical evidence of the mechanisms by which educational attainment influences promotion within state-owned enterprises. These findings contribute to a more comprehensive understanding of how education shapes career development, providing qualitative and quantitative insights into the promotion mechanisms at play. These results served as a foundation for further discussion on the role of educational background in career advancement and the overall promotion system within state-owned enterprises in the following sections.

4.5 Summary of the chapter

The impact of educational attainment on employee promotions within state-owned enterprises was explored using quantitative and qualitative research methods. The empirical analysis revealed a significant positive effect of educational attainment on promotions, particularly in the early stages of employees' careers. Employees with a similar educational background to senior leaders were more likely to be promoted, highlighting the importance of educational networks. Geographic proximity to the workplace also played a role in promotion likelihood. Additionally, the interview analysis provided qualitative insights into employees' perspectives, revealing that higher education significantly impacted career development. Female employees, in particular, viewed education as a means to overcome workplace discrimination and increase career opportunities. Overall, the findings illustrate the multifaceted role of educational attainment in promotion mechanisms within state-owned enterprises.

5. Chapter 5: Theoretical Analysis and Empirical Integration

5.1 Shaping Networks Based on Educational Backgrounds

The role of educational background as a potential network in career advancement has been discussed previously. Before discussing the cases in this study, it is helpful to introduce some known cases. In 2017, there was a TV series, “In the Name of the People”, produced by the Film and Television Centre of the Supreme People's Procuratorate and other organisations in mainland China, gained highly high ratings and was adapted from the novel of the same name, “In the Name of the People” by the famous writer Zhou Meisen. In the book “In the Name of the People”, the author fictionalised a province H, in which there are two prominent political factions in the provincial government, namely the “Secretary Gang” and the “H University Gang”, of which the “University H Gang” is made up of the fictional “H University”. The “H University Gang” consists of graduates and teachers from the fictional University of H, who form a political alliance after joining the government to promote each other, and the four main characters in the book come from the University of H. The content and character relationships are preserved and presented in this TV series, produced by the Film and Television Centre of the Supreme People's Procuratorate. Zhou Meisen is a famous Chinese writer. He used to work as a deputy secretary-general of the Xuzhou Municipal Government. This experience gave him a good understanding of the rules of the Chinese government, and he has written political novels many times. His works have been included in the “70 Long Novels of 70 Years of New China” collection. Zhou Meisen's understanding of the political situation in China has led him to be recognised by his audience for the authenticity and reasonableness of his work. Indeed, there have been similar groups revealed in anti-corruption investigations, most notably China

National Petroleum Corporation (CNPC), a large state-owned enterprise that is perennially ranked among the world's top 500 companies, which had several top executives investigated in 2013, three of whom graduated from the Southwest University of Petroleum, China's official media outlet, the Beijing Youth Daily, reported on the incident, writing, "It's not entirely coincidental that three 'alumni' who rose through the ranks quickly 'fell off the horse' on the same day." Obviously, the "University of H Gang" is not just a figment of the writer's imagination; in state-owned enterprises, networks of contacts formed because of educational backgrounds exist.

The processes and ways of forming networks through educational backgrounds in SOEs are different due to the nature of the enterprises and the diversity of their operations. In this interview, we learnt of one such example, the authenticity of which cannot be ascertained as it is only an oral account from one of the interviewees without any other supporting evidence. This interviewee mentioned that in his department, an increasing percentage of employees have graduated from well-known universities. The reason for this phenomenon is that the head of the department graduated from that university. In the annual recruitment of fresh graduates, the head of the department sets the educational requirements for recruiting fresh graduates at the university level from which he graduated. There are five institutions in the neighbourhood in this category, and two of them have a large number of graduates from this category. The head of the department's graduating institution has the most graduates from this category, while the other three universities do not have graduates from this category. The other three universities are not strong in this speciality. This has resulted in a much higher proportion of "alumni" in the recruitment of supervisors taking the examination than in the other universities, which has led to many graduates from this university being sent to the company every year. Although this process is reasonable and objectively raises the level of education of the company's new employees, the interviewee is frustrated

that an increasing proportion of promoted employees come from this university, which makes him feel that his chances of promotion seem to be squeezed.

This is an isolated example, which may not be representative, but similar situations were mentioned several times among the interviewees. In the interviews, 25 interviewees said that they had noticed a “bunching” of graduates from a particular university in the company or department. One interviewee mentioned that during an interview in which he was the interviewer, several interviewers were not entirely fair in their scoring of candidates, preferring to give high scores to graduates from the same institution, which ultimately led to unfair results in the acceptance of employees. This is probably so common that in our interviews, we hypothetically asked whether respondents would be more likely to hire a candidate with the same educational background as them if they were chairing the recruitment process. More than half of the responses were in the affirmative. This would be the norm, with six respondents mentioning that they did, while many others perhaps didn't have the opportunity to do so. As expected, many respondents expressed a greater affinity for alums when asked about the reasons for this bias. They considered it would add a sense of kindred spirit to their organisation. The connections built by educational backgrounds begin to develop particular barriers when entering the organisation, and this has caused many people who do not have the advantage of connections to fall at even the first hurdle of promotion.

Recruitment bias is only the first step in constructing a network of contacts with educational backgrounds within the enterprise, and the subsequent promotion process will reflect the influence of educational backgrounds in the network of contacts. The concept of “value highly” has been raised before, and such “value highly” will affect the work tasks assigned to employees. Different work tasks may have different performance returns, and more critical work often means more outstanding performance, significantly affecting promotion speed. For example, a representative example was given by one respondent, who said, “There is a clear bias in project allocation by the

leaders. Once, when a temporary critical project was assigned by a higher authority that required our department to provide a leader to lead the team, I saw that the supervisor ultimately chose a college alumnus of another upper-level executive instead of considering other suitable candidates. The supervisor seemed happy with his decision because the upper-level executives recognised him.” Similarly, many interviewees gave examples of “alumni first,” which certainly impressed them. One interviewee described his experience, “Once, I was leading a small team as the key person in charge of a project, and when the project was about to be completed, my supervisor approached me and asked me to be in charge of leading a newcomer who had just joined the company and introducing him to my team, which was confusing because my job description at that time did not include developing new employees and my project was about to be completed and did not need a newcomer to join. I was about to complete a project and didn't need a new person. I later learnt that the new employee and my supervisor were master students under the same supervisor. And so it was that this new employee was involved in a large project just after he started, and even though he didn't do much, the supervisor thought his work was well done, and he hoped that the other employees felt the same way.” Of course, under normal circumstances, the more important task of assigning better employees is to make rational use of human resource performance, but for new employees, whether they are good or not may rely more on judgements based on their educational attainment, which provides a reasonable cover and a certain degree of persuasiveness for the influence caused by networking from educational backgrounds. However, this persuasive power is lost when both parties to a mutual networking relationship do not have an excellent educational background. One interviewee said, “I was once in a small team at the beginning of my career, and I was the only one of the five who was a highly educated employee from abroad, while the other four were graduates of local universities, which made me feel like an outsider all the time. The team leader always alienated me intentionally or unintentionally. I was often at the

bottom of the list regarding work allocation. My education and ability were useless when evaluating performance and striving for promotion opportunities. It was not until I changed departments that my situation improved.” In this interviewee's situation, networking by educational background existed among those with lower educational attainment, which resulted in him becoming alienated from the networking circle, and the impact of networking on him became negative.

The network of contacts brought about by educational background may vaguely or manifest itself as an existing circle. More than twenty interviewees indicated they were aware of a small alum circle in their companies, and some interviewees were in such a small circle themselves. Such cliques, which are somewhat private, are usually hotbeds of gossip. “My colleague is always telling me interesting things about the company leaders, and I wondered how she knew all this. She told me that her classmates in other departments work beside the leaders so that she can hear a constant stream of gossip.” One interviewee told me about such an experience. The messaging function of a small circle is certainly not limited to irrelevant windfalls; such hidden circles are an essential part of the information gap. “After I had just been promoted, my classmate in another department told me that my team might have to be split up, which was so hard for me to accept that I was hesitant to believe it. But it turned out he was right. I also prepared for the department I wanted to move to.” Hidden sources of information usually mean being one step ahead, as this interviewee's experience illustrates. News also usually means resources, and one interviewee gave this example, “When I was leading the development of a project, alumni in other departments told me promptly that they had already tried something similar, and I was able to accelerate the project significantly by learning from their experience. It made me realise that despite graduating many years ago, I can still get help from my school.” Overall, the network formed by educational background plays a vital role in the workplace. Being in the circle of contacts gives you access to unique and hidden information channels and more favourable conditions to

participate in small-circle cooperation and resource sharing. This kind of vague relationship ties may not attract attention in daily work but quietly promote interaction and cooperation in the workplace, ultimately impacting employee promotion.

The data in Chapter Four shows how educational background ultimately influences promotions. Similarly, many interviewees gave the same conclusion, stating they had witnessed colleagues with the same educational background as their immediate supervisors being promoted more quickly. This difference in promotion is convincing enough because from the biased screening at the time of joining to the focused appointment after joining, and then to the news advantage of the small circle, the network of educational background will be the advantage of promotion step by step to accumulate. The final result is that the employees who get the help of the circle of contacts have the advantage of achieving a step forward in the promotion. This kind of long-term cooperation will further consolidate the stability of the network circle and eventually form the aforementioned “Southwest Petroleum University alumni” interest group; of course, optimistically, this kind of mutual benefit may also produce a benign network circle, and have a positive effect on the enterprise, for example, highly educated and capable employees can rely on the alumni's ability to promote their career. For example, highly educated and capable employees can give full play to their talents faster and better with the help of alums, which is also beneficial to the development of the enterprise.

5.2 Integration of Theoretical and Empirical Findings

5.2.1 Educational Attainment as Human Capital and Its Impact on Promotion

The study's empirical results strongly back the assertion of human capital theory: that education boosts an individual's economic potential and productivity. Quantitative analysis reveals that both employees' initial educational attainment (Ini: 0.460***) and

final educational attainment (Fin: 0.662***) exhibit a significant positive correlation with promotion probability, especially at the lower promotional tiers. Furthermore, improving one's educational level while employed (Upgrade: 0.405***) also significantly propelled promotions, underscoring the importance of continuous learning and skill accumulation. This aligns with Schultz's perspective that education is a pivotal factor in individual income growth and economic development. The findings suggest that within Chinese state-owned enterprises, academic qualifications are indeed regarded as valuable human capital, serving as a vital resource for value creation and a symbol of organisational trust and status.

Qualitative interviews further substantiated this relationship. Many interviewees felt that higher education bolstered their capabilities and helped them secure better positions, thereby effectively aiding their career progression. Similarly, employees undertaking academic upgrading also reflected on how gaining deeper specialised knowledge and a broader business perspective assisted their career advancement. This directly mirrors Becker's micro-analysis concerning human capital investment through training and its subsequent returns. The interviewees' accounts of the perceived enhancement of abilities through education directly translated into promotional advantages within the enterprise, thus validating the human capital perspective. Likewise, this also highlights the emphasis on education in promotions within Chinese state-owned enterprises, a trend consistent with traditional Chinese culture's affirmation of education's pivotal role.

5.2.2 The Role of Social Capital and Social Networks in Promotion

Beyond individual capabilities, this study's findings highlight the crucial role played by social capital in the promotion process, aligning with theories proposed by Bourdieu, Coleman, Putnam, and Lin. Our quantitative results indicate that 'overlap' (having the same educational background as one's direct supervisor) and 'similarity' (having a similar educational background to the supervisor) both display a significant positive correlation with promotion. This suggests that shared educational experiences

facilitate the formation of social networks, fostering mutual recognition and trust—all crucial components of social capital.

Qualitative data provided rich context for these statistical correlations, particularly regarding the phenomenon of 'alumni circles' within enterprises. The existence of 'alumni' and academic networks resonates with Coleman's argument: that once social capital is established, it benefits individuals within the relevant social structure by facilitating action and information transmission. The 'alumni-first' phenomenon reported by interviewees serves as a direct illustration of how social ties rooted in shared educational backgrounds significantly influence career trajectories within state-owned enterprises, thus reinforcing the notion that social networks are vital resources for career progression. The emphasis placed on building interpersonal networks during academic upgrading while employed also underscores employees' conscious accumulation of social capital for career benefits.

5.2.3 Educational Attainment and Social Status Acquisition in a Transitional Context

The findings of this study also align with social status acquisition theory, especially within the context of Chinese state-owned enterprises undergoing a transitional period. As traditional systems, where family background might have played a larger role, gradually fade, academic qualifications have become a core criterion for recruitment and promotion, effectively serving as a new form of social capital. Higher education, particularly from prestigious institutions, offers a competitive edge in career development, contributing to social mobility and potentially promoting social equity.

Meanwhile, the research results indicate that the impact of educational attainment on promotion shows a varying influence across different organisational levels. Quantitative analysis strongly supports Hypothesis 3: the significant positive correlation between initial and final educational attainment and promotion is prominent at lower levels (Level 1 and Level 2), but it significantly weakens or even disappears at higher

levels (Level 3 and Level 4)¹. Qualitative interviews further elucidated the mechanisms behind this shift. In the early stages of a career and at lower levels, educational attainment is a crucial factor for employees to stand out. However, at higher levels, the situation differs. At lower levels, formal human capital (education) functions as a strong signal and a foundation for initial trust (social capital). At higher levels, however, the focus shifts to experience-based management capabilities and the ability to navigate complex interpersonal/political relationships. These can be viewed as practical and political social capital. This implies a dynamic status acquisition model, where different forms of capital hold varying significance at different stages of a career.

Furthermore, the finding that education has a more positive impact on women's promotion than on men's is particularly noteworthy. This suggests that academic qualifications can be a potent tool for women to overcome workplace barriers and discrimination, enhancing their career opportunities and contributing to social equity within the state-owned enterprise environment. This result indicates that education, as a fairer form of human capital, holds potential in mitigating gender-based disparities in status acquisition.

5.2.4 Implications from Upper Echelons Theory

While not the primary focus, findings related to the 'overlap' variable indirectly support certain elements of Upper Echelons Theory. This theory posits that the demographic characteristics of top management teams, including educational background, can influence firm behaviour, performance, or strategic choices. Supervisors with the same educational background have a significantly positive impact on employee promotions, suggesting that the characteristics of senior leadership might influence promotion decisions. This could stem from a tendency for leaders to favour or better understand individuals who share similar educational experiences, thereby affecting promotion pathways.

5.3 Summary

This chapter, dedicated to the theoretical analysis and integration of empirical findings, has systematically explored how various theoretical frameworks illuminate the mechanisms of employee promotion within Chinese state-owned enterprises. Through a combination of quantitative and qualitative data, we have deepened our understanding of the interplay between educational background, human capital, social capital, and status attainment.

Section 5.1 provided an in-depth analysis of campus relationship networks as revealed through interview data. This section demonstrated how informal social ties, specifically those stemming from shared educational backgrounds or alumni connections, serve as a significant form of social capital. These networks facilitate information exchange, foster mutual trust, and can create 'alumni-first' advantages, directly influencing an individual's career trajectory and promotion opportunities within the SOE context.

Building upon this, Section 5.2 presented a broader discussion integrating theoretical and empirical findings. This section affirmed the strong support for Human Capital Theory, showing that higher educational attainment, both initial and through continued upgrading, significantly enhances an individual's economic potential and is valued as a key resource for promotion within SOEs. Furthermore, the findings significantly underscored the multifaceted role of Social Capital, extending beyond just campus networks to include 'overlap' and 'similarity' in educational backgrounds with supervisors, which positively correlate with promotion. This highlights how shared educational experiences cultivate influential social networks vital for career progression. The analysis also aligned with Social Status Acquisition Theory, indicating that in China's transitional SOE environment, education has become a core criterion for status attainment, promoting social mobility and equity, notably by having a more pronounced

positive impact on women's promotions. Finally, elements of Upper Echelons Theory were indirectly supported, suggesting that shared educational characteristics with senior leadership might subtly influence promotion decisions.

In essence, this chapter concludes that employee promotion in Chinese state-owned enterprises is a complex process driven by the dynamic interaction of formal human capital (education and acquired skills) and various forms of social capital (including both informal campus networks and more formal professional ties). The findings collectively provide a nuanced understanding of how these theoretical constructs manifest in real-world promotion mechanisms, affirming education's pivotal and multifaceted role in shaping career advancement.

6. Chapter 6: Discussion, Conclusion, and Recommendations

6.1 Main findings

The main findings of this study are as follows:

(1) Through an in-depth analysis of the promotion mechanisms, This study reveals the critical role of educational background in the career development of employees in state-owned enterprises (SOEs). The findings indicate that educational attainment significantly affects employees' promotion opportunities, with highly educated employees more likely to attain higher positions within the organisation. The dual roles of human capital and social capital can explain this phenomenon.

First, human capital theory emphasises that educational background enhances employees' knowledge and professional skills, enabling them to perform efficiently and innovate at work. This improvement in professional capabilities increases employees' competitive advantage and allows them to effectively complete complex tasks, gaining recognition from superiors and better promotion opportunities. Furthermore, the high-level knowledge and skills brought by educational background also improve employees' decision-making abilities and leadership, allowing them to play critical roles within teams and further solidify their promotion paths. Highly educated employees typically possess more specialised knowledge and skills, making them more suitable for positions requiring high expertise. This inclination leads managers to prefer promoting highly educated employees more capable of handling complex tasks.

Second, social capital theory further reveals how educational background influences promotions through social networks and relational resources. Highly educated employees often have broader and deeper social networks, including alum relationships and professional connections established through higher education

platforms. These social networks provide highly educated employees with channels to access internal information and resources, enabling them to understand better the organisation's internal promotion mechanisms and opportunities. At the same time, these relational networks enhance the trust and influence of highly educated employees within the organisation, making it easier for them to gain support and recognition in crucial decision-making processes. Additionally, mutual support and cooperation among highly educated employees facilitate smooth career development, as they can form collaborative solid teams within the organisation through mutual recommendations and information sharing, thereby collectively elevating their status and influence within the enterprise.

In post-reform China, educational attainment, as an acquired factor, plays an essential role in individuals' acquisition of social status. From the perspective of senior managers' traits, the qualities possessed by highly educated employees enable them to make rational decisions, and highly educated management tends to recognise the promotion of highly educated employees. These factors will enhance the impact of educational background on promotions in SOEs, making it easier for highly educated employees to get promoted.

Therefore, educational background affects promotions by enhancing individual professional capabilities and work performance and building and leveraging extensive social networks to improve promotion opportunities. This finding is of great significance for optimising human resource management in SOEs. Enterprises should value employees' educational backgrounds, actively recruit highly educated talents during recruitment and training, and improve existing employees' educational levels and professional capabilities through internal training and continuing education. Additionally, enterprises should encourage employees to build and maintain good social networks, promoting communication and cooperation among employees through

various platforms and activities, thereby providing more support and opportunities for their career development.

(2) This study collected questionnaires and obtained relevant empirical results to determine the promotion of some employees in a large state-owned bank. In general, in state-owned enterprises, the promotion of employees is significantly affected by their educational attainment. Specifically, the higher an employee's educational attainment, the higher the probability he will be promoted.

Educational attainment includes the first educational attainment that an employee obtains, i.e., the initial, and the employee's current highest educational attainment, i.e., the final. Both represent the employee's education level and play a significant role in promoting the employee's promotion. However, the difference is that the positive effect of the final educational attainment on promotion is slightly higher than that of the initial educational attainment.

Moreover, in state-owned enterprises, employees' promotions are also affected by their educational attainment during their working lives. Specifically, employees who obtain academic advancement are more likely to be promoted. After considering the overlap or similarity of educational background with the immediate leader, this study finds that the relationship with the immediate leader regarding educational attainment will impact the employee's promotion.

Overall, both overlap and similarity in educational background between employees and their immediate leaders significantly increase the chances of promotion. However, when educational background overlap occurs, the effect of employees getting a boost in their chances of promotion is higher than the effect of the boost brought about by educational background similarity.

At the same time, it can be found that the effect of the educational attainment factor (including initial and final educational attainment) on promotion is significantly higher at lower levels of promotion than at higher levels of promotion. This indicates that the

effect of educational attainment is more evident in low-level promotion, suggesting that the social capital benefits of educational attainment will provide the main help for employees' promotion when their abilities are not fully demonstrated. The management does not have enough time to examine the employees.

Educational background facilitates the networking of individuals within an organisation and enhances the promotion opportunities of circle members by forming specific cliques. Such networks based on academic background can sometimes lead to selection bias, particularly in hiring and promotion, favouring candidates with academic backgrounds similar to the decision maker.

At the same time, the impact of educational attainment on employee promotion has gender differences, and the promotion of the female group is significantly more substantial than that of the male group due to educational attainment. This suggests that a fair process of access to academic resources allows women to demonstrate their outstanding abilities through educational attainment better, thus breaking the suppression that gender discrimination brings to women's promotion.

(3) Educational background is a potential network of contacts, and building a network of contacts based on educational background impacts promotion within state-owned enterprises. Alums with the same educational background or employees with similar educational backgrounds will form a small circle within the enterprise. This circle increases promotion opportunities for employees within the circle. It solidifies and strengthens the circle through potential bias in hiring employees, differentiated treatment at work, and the advantage of internal information. The educational background provides cultural inheritance and recognition for the establishment of the circle, as well as social consensus and recognition of personal experience, which strengthens mutual trust and the solidity of interests within the circle, which makes the educational background a potential networking relationship strengthened in state-owned enterprises and ultimately come to the surface, and becomes a more robust social

network when the system restricts the networking resources brought by blood relationship. This has led to a unique alum promotion advantage within SOEs, catering to the networking needs of the relevant parties.

Educational background networks not only form highly cohesive cliques within enterprises but also enhance promotion opportunities for their members by strengthening mutual trust and consensus. Particularly in state-owned enterprises, these cliques often consolidate their organisational influence through preferential personnel decisions, unequal distribution of work, and privileged access to internal information. However, these internal cliques can lead to non-objective talent selection, restricting the company's ability to utilise a broad range of human resources and potentially having long-term adverse effects on the enterprise's capacity for innovation and market adaptability.

Moreover, while networks based on educational backgrounds can enhance team cohesion and operational efficiency in the short term, over-reliance on these networks may lead to homogeneity in decision-making processes and suppress the emergence of diverse opinions, thus affecting the diversity and effectiveness of corporate decision-making. Therefore, while state-owned enterprises leverage the advantages brought by educational background networks, they should also be wary of potential risks. It is essential to explore establishing more fair and transparent mechanisms for promotion and talent selection to ensure comprehensive evaluation and utilisation of all types of talent, promoting sustained and healthy enterprise development.

The main findings above highlight the significant influence of educational attainment, gender, and educational networks on employee promotions within SOEs. Table 17 summarises the research aims and the methods employed to achieve them, while Table 18 presents the hypotheses tested and their corresponding statistical results. These tables provide a concise overview of the study's key findings, reinforcing how the data supported the research objectives and hypotheses.

Table 17: Research Aims and Methods of Achievement

Research Aim	How It Was Achieved
To explore the impact of educational attainment on employee promotions within state-owned enterprises	Conducted quantitative analysis of survey data on the relationship between educational attainment and promotion opportunities, combined with qualitative analysis of interview data exploring employees' perceptions of how education has influenced their promotion
To examine gender differences in the promotion process within state-owned enterprises	Conducted quantitative analysis of survey data on gender and promotion opportunities, combined with qualitative analysis of interview data discussing how gender differences influence promotion
To investigate the role of educational networks as social capital in employee promotions	Conducted quantitative analysis of survey data on the proximity of employees' educational institutions to the workplace and the similarity of educational backgrounds between employees and their supervisors, combined with qualitative analysis of interview data on the influence of alumni networks, geographical ties, and academic background similarity in the promotion process

Table 18: Hypotheses and Corresponding Statistical Results

Hypothesis No.	Hypothesis	Key Variables	Statistical Results
H1	Higher initial and final education levels are positively correlated with promotion in SOEs.	Ini Fin	Logistic regression analysis shows significant positive effects ($p < 0.01$) for initial and final education variables.
H2	Further upgrading educational attainment after joining SOEs helps employees get promoted.	Upgrade	A significant positive correlation was found, verifying the hypothesis with a correlation coefficient of 0.405 ($p < 0.01$)
H3	The effect of educational attainment on promotion is more significant in lower-level promotions.	Ini Fin Level	Analysis showed stronger correlations for lower-level promotions, validating the hypothesis.
H4	The more similar the educational background of the supervisor, the higher the employee's promotion probability.	Similarity Overlap	Positive correlation confirmed, with coefficients of 0.516 ($p < 0.01$) for overlap and 0.285 ($p < 0.05$) for similarity.
H5	The closer an employee's graduation institution is to the place of work, the higher the probability of promotion.	Location	A positive correlation between the proximity of educational institutions and promotion probability was found ($p < 0.01$)
H6	The promotion of female employees is more significantly affected by educational attainment than male employees.	Ini Fin Upgrade Gender	A significant positive impact was observed for female employees, with a correlation coefficient of 0.464 ($p < 0.01$)

6.2 Policy recommendations

Having found that educational attainment has an impact on promotion, we need to make a distinction between such impacts first. First, the main reason for employees to be promoted should be the reward for their competence, which a regular promotion system should bring. The impact of educational attainment on promotion should be based, first of all, on the part of the differences in competence, which is easy to

understand from the perspective of human capital. At the same time, it should be taken into account that the social influence and the general perception brought by the graduating institution, so that the educational attainment help the employees to get additional trust and expectations, to a certain extent, provides the management with auxiliary information for the perception and screening of employees. However, it is also essential to consider that this trust and expectation may not always be met. When employees are misjudged due to their educational attainment, this effect will harm the organisation's promotion system's functioning. Thus, in general, when social capital related to educational background impacts employee promotion in state-owned enterprises, this impact should be neutral, i.e., this impact may bring positive or adverse effects. The impact should be considered neutral when there is no evidence that the chances of positive and negative effects are unequal. The impact of promotion opportunities based on the educational background of human relations should be negative because the impact of this kind of human relations on promotion is not based on the consideration of the overall interests of the enterprise. Still, first of all, based on personal interests, people form a circle of contacts due to the proximity of personal relations and the degree of reliability of safeguarding their interests, which is not for the service of the enterprise. Thus, the influence of this circle of contacts on the promotion opportunities for employees does not necessarily have a maintenance effect on the enterprise promotion system; on the contrary, when this influence on the promotion mechanism of the enterprise produces a destructive effect, it will not get the circle of contacts spontaneous correction, then on the whole, this influence is bound to be negatively oriented. When we fully consider the different nature of the three elements that contribute to the influence of employees' educational attainment on promotion opportunities in state-owned enterprises, it is natural that different attitudes and strategies should be adopted to deal with these three elements differently.

Firstly, the assistance that high educational attainment brings to promotion will help talented people with high human capital to have fuller opportunities for development and incentives for promotion within SOEs, which is favourable for developing human resources in enterprises. Some strategies can be adopted to promote this positive effect and help talented and highly educated people get more appropriate promotion opportunities. Enterprises can establish special promotion channels, select specific highly educated talents for training, and give these employees more chances to participate in the work of the management to accelerate the progress of talent development, avoid the phenomenon of simmering seniority that often occurs within state-owned enterprises, and thus better develop the potential and value of highly educated human resources. In fact, after the end of the Cultural Revolution, the CPC faced a lack of young and middle-aged cadres. The party set up the Bureau of Young Cadres to solve this dilemma, which quickly trained and promoted several young cadres. This system is also relevant nowadays, as state-owned enterprises may face a shortage of young cadres during the reform process. Suppose young and highly educated talents cannot be promoted immediately due to low educational attainment. In that case, they should consider the practical significance of a similar system nowadays and the positive benefits it may bring to the enterprises.

An employee's high level of education can generate higher recognition and expectations from the manager, which is like adding a halo to the employee. However, such recognition and expectation may not be objective, so it is necessary to establish a richer and more comprehensive evaluation mode to make employees get recognition and expectations aligned with their abilities. To more accurately assess the competence of employees, enterprises can actively explore and implement an innovative academic evaluation system. This evaluation system should go beyond the traditional assessment of educational attainment and pay more attention to the close connection between educational attainment and employees' actual work performance and the specific role of

educational attainment in employees' duties and achievements. This innovative evaluation method will help companies gain a more comprehensive understanding of the contribution of educational attainment to employees, improve the accuracy of the assessment, provide employees with fairer opportunities and adopt a more scientific approach to promotion decisions. The innovative academic evaluation system should fundamentally re-examine the relationship between educational attainment and job performance, recognise that the link between educational attainment and actual job performance is not always directly related, and clarify the expected performance of employees with different levels of educational attainment in various positions, as well as the extent to which these expected performances are matched with the actual results of the work to improve the accuracy of the evaluation system. Moreover, for the differences like work in different lines of state-owned enterprises and other departments within the enterprise, enterprises or departments can use data analysis technology to collect and analyse a large amount of employee data to understand better the actual relationship between educational attainment and work performance, and to find out the characteristics and trends, to formulate more targeted promotion and training plans. The innovative educational attainment evaluation system will help organisations more accurately assess their employees' educational attainment and more fairly consider the role of educational attainment in their career development. This will provide more opportunities for employees, encourage them to pursue higher educational attainment and contribute to the organisation's performance. By continually optimising and improving assessment methods, businesses can better leverage the positive effects of educational attainment on employees and organisations.

The impact of the alum networking circle on the promotion mechanism of the organisation is likely to be harmful, and some strategies can be adopted to curb the formation of this networking circle and improve its impact on the organisation. Such as:

(1) Introducing a diversity interview assessment methodology to reduce subjective bias and improve the fairness of promotion opportunities. This initiative can significantly improve the unfairness of the promotion process, especially by mitigating the impact of educational background on employee assessment. Considering that traditional interview questions may be subject to subjective factors that can lead to inconsistent assessment results, SOEs can design diverse interview questions that cover different domains and contexts to address this issue. It is important to allow candidates to demonstrate their varied skills and experience, not just their educational background. For example, in leadership, employees can be asked how they have dealt with challenges and solved problems rather than just being asked to list their academic achievements. At the same time, the weighting of academic thresholds in hiring scores could be appropriately lowered to allow for the weighting of more practical test content. It is not just the diversity of assessment methods that is necessary, but also the diversity of interviewer teams. Selecting interviewers with different professional backgrounds and posting experiences can provide a more comprehensive and diversified view of the interview results and minimise subjective bias in the assessment. In promotion interviews, there can be interviewers from different departments, grades and backgrounds. Still, at the same time, it should be noted that this is not an act of interference by outsiders leading the insiders but rather a reconciliation method to reduce the influence of private factors in generating the interview results. It is important to note that interviewers of different professions should be given different weights when giving interview results. By introducing a diversity approach to interviewing and assessment, SOEs will be better able to recognise the development potential of their employees rather than just looking at their educational background. This will help create a more inclusive and diverse work environment that reflects employees' true abilities and potential. Ultimately, this will promote fairer admissions and promotion

opportunities and provide employees with more opportunities for career development regardless of their educational background.

(2) Promote the diversity of employees' social circles to alleviate the situation where employees rely only on their educational background networks. SOEs can encourage employees to actively participate in industry events and social activities to enrich their network of contacts in order to weaken the solidity of alums and academic circles so that the barriers to networking can be weakened mutually, and ultimately weaken the impact of various types of networking circles on promotion. This can take the form of encouraging employees to participate in industry conferences, seminars, professional associations, etc., to provide them with opportunities to interact with professionals in different fields. This can enable employees to expand their social circles and build a broader range of interpersonal relationships, thereby attenuating the solidification of internal circles. Secondly, SOEs can create opportunities for cross-sectoral cooperation, which will help employees to work with colleagues from different backgrounds and areas of expertise, facilitate the exchange of knowledge and experience, and build more diverse connections without limiting them to their networks of educational backgrounds. In addition, SOEs should hold more internal social events to promote communication and interaction among employees. For example, team-building activities, symposiums, knowledge-sharing sessions and other forms are often used within the enterprise, through which employees can build a more complex internal network. Moreover, enterprises can establish an internal education model, following the example of the school mentor system. State-owned enterprises can establish a diversified rotational mentor programme to encourage older employees to interact and collaborate with new employees. This helps pass on knowledge and experience and provides networking opportunities for employees with different educational backgrounds. The non-fixed rotational mentorship model will help junior employees expand their circle of contacts and gain access to a broader range of support

and guidance without moving them closer to alum circles and academic circles. Ultimately, these initiatives will help employees build a broader network of contacts, mitigate reliance on educational background networks alone, and provide more opportunities for their career development. This will benefit the growth of individual employees and contribute to the healthy functioning of the promotion system in state-owned enterprises, safeguarding their long-term development and innovation capabilities.

(3) Establish a fair and transparent promotion system to reduce the influence of personal connections on promotion fundamentally. State-owned enterprises should formulate clear promotion conditions and assessment criteria, so that the requirements are objective and measurable, and directly related to the employee's work performance. Enhance the measurability of promotion criteria, thereby reducing the influence of supervisory factors. Enterprises should take steps to ensure that the promotion process is transparent and that employees clearly understand all stages of the promotion process. This includes the timetable for recruitment and promotion, the documents and materials required, and the methods used to assess employees. By providing transparent information, all employees are equally prepared for promotion. Establish an effective feedback mechanism that allows employees to understand how they perform in their appraisals and provides opportunities for improvement. This can be done through regular performance appraisal meetings, individual feedback and development plans. Employees can better understand where to improve to meet promotion criteria through timely feedback. Establish a monitoring and grievance mechanism to ensure the fairness of the appraisal process. Employees should have the right to object; if they feel they have been unfairly assessed, they should have avenues to address these issues. This will help build employee trust in the promotion system and encourage organisations to improve their assessment methods continually. By establishing clear promotion criteria, a transparent promotion process, diversified assessment methods, feedback mechanisms

and monitoring and complaint mechanisms, enterprises can eliminate subjective bias and ensure that employees are promoted based on competence and performance without interference from irrelevant factors.

At the same time, it should be recognised that from the perspective of the Social Status Attainment Theory, the positive impact of educational background on the promotion of employees in state-owned enterprises is of significant justice. This impact reflects the realisation of social fairness and equal opportunities and promotes social mobility and overall social development. The Social Status Attainment Theory emphasises that education is the primary means of social mobility and class transition. Higher education allows individuals to acquire knowledge, skills, and professional qualifications, enabling them to gain higher competitiveness and better career opportunities in the labour market. Therefore, the positive impact of educational background on promotion reflects the fair competition opportunities that individuals obtain through their efforts and learning.

Furthermore, from a justice perspective, education is crucial to achieving equal opportunities. The fair distribution and widespread accessibility of educational resources ensure that all members of society, regardless of their family background, can enhance their abilities and career prospects through education. This equitable educational opportunity provides individuals with a foundation for fair competition, making promotions more dependent on the knowledge and skills acquired through education rather than personal social origins and networks.

The positive impact of educational background on promotion helps to break down the barriers to promotion based on family background and social relations prevalent in traditional societies. In the past, individuals' career development was often heavily influenced by their family background and social connections, solidifying social strata and inequality of opportunities. By improving educational levels, individuals can gain

more career opportunities and promotion prospects through their efforts, thus achieving social mobility.

The positive impact of educational background on promotion promotes fair competition and performance orientation within organisations. Evaluating employees' promotion qualifications based on educational background and job performance can reduce subjective factors and human intervention in the promotion process, ensuring transparency and fairness.

The positive impact of educational background on promotion, especially its positive effect on female employees, further highlights the critical role of education in achieving gender equality and social justice. With fair distribution of educational resources, women can better demonstrate their outstanding abilities and overcome the suppression caused by gender discrimination, achieving their career development goals. This means that the impact of educational background on promotion will help to establish a more equitable and female-friendly corporate system.

Therefore, both the government and enterprises should improve the positive impact of educational background on promotions and take measures to ensure the positive influence of this justice. The suggested measures include:

(1) Ensuring Fair Distribution of Educational Resources: The government should ensure that educational resources are fairly distributed among groups with different regional and socioeconomic backgrounds, which will determine whether the decisive role of education is just enough. The government should increase investment in educational resources in underdeveloped areas, such as building more schools, providing more scholarships and student loans, and introducing high-quality teaching staff. By narrowing the urban-rural education gap, the government can ensure everyone has equal access to high-quality education, thus enabling them to compete fairly in the labour market. In addition, the government can guide and support enterprises through policies and financial aid to provide continuing education opportunities for employees,

ensuring that the distribution of educational resources outside of schools is also fair and reasonable.

(2) Providing Continuing Education and Career Training Opportunities: Enterprises should offer extensive continuing education and career training programs to help employees continuously improve their knowledge and skills. Companies can partner with universities and vocational training institutions for various learning and development opportunities. Sponsoring employees to attend training courses, seminars, and academic conferences can help them obtain higher degrees and professional qualifications, enhancing their competitiveness and promotion prospects. For example, companies can set up educational subsidies or scholarships to encourage employees to pursue part-time postgraduate studies or professional certification exams. By implementing these measures, enterprises can improve their employees' overall quality and business capabilities while enhancing their loyalty and sense of belonging, ultimately promoting sustainable development.

(3) Establishing and Promoting Gender Equality Policies: To promote the career development of female employees, enterprises should establish and promote gender equality policies, ensuring that women have the same opportunities as men in education, training, and promotion. Companies can set up unique career development plans and support networks to help female employees overcome career development barriers and achieve their career goals. For example, businesses can provide training and career development programs for female employees to enhance their management and leadership skills. Additionally, companies can establish support networks for female employees, offering career guidance, psychological support, and resource sharing to help them succeed. Moreover, to achieve gender equality, enterprises should pay particular attention to the educational advancement needs of female employees and provide targeted support measures. For instance, companies can set up an education fund for female employees to support their educational advancement plans. Furthermore,

flexible work arrangements and family support measures can help female employees balance work and study, enabling them to advance their education and careers smoothly.

(4) Implementing a Promotion System that Combines Educational Background and Performance: To reflect educational background's positive impact on promotion, enterprises should implement a promotion system that combines educational background and performance. Specifically, companies can include educational background and performance as critical evaluation criteria in promotion reviews, considering employees' educational qualifications and actual job performance and contributions. In practice, enterprises can establish a comprehensive evaluation system that includes multiple dimensions such as educational background, performance reviews, work experience, and professional skills. Each dimension should have clear evaluation standards and scoring mechanisms. For instance, an employee's educational background can be scored based on their highest degree, relevance to their professional field, and continuing education experiences; performance reviews can be scored based on work results, innovation capabilities, teamwork, and customer feedback. This comprehensive promotion system can effectively avoid relying solely on educational background or performance, ensuring promotion decisions' thoroughness and scientific basis. Through this approach, enterprises can identify and promote employees with well-rounded capabilities, encourage employees to improve their educational qualifications, and continuously enhance their job performance and contributions. Additionally, enterprises can regularly conduct promotion review training to help committee members master scientific evaluation methods and fair review standards, ensuring the fairness and transparency of the promotion process.

(5) Establishing an Educational Advancement Incentive Mechanism: Enterprises can establish an educational advancement incentive mechanism to reward employees pursuing further education and achieving significant results. For example, companies can create an "Educational Advancement Award" to provide bonuses, promotion

opportunities, or additional vacation days to employees with higher degrees or professional certifications while working. Enterprises can formulate detailed reward policies and standards to implement the incentive mechanism. For instance, employees who successfully obtain a master's or doctoral degree can be awarded a one-time bonus and prioritised for future promotions. Employees who achieve professional certification or complete specific training programs can receive performance bonuses or additional leave. Furthermore, enterprises can provide more resources and support to help employees advance their education. Companies can set up educational funds to sponsor employees pursuing degree programs or professional training, offer flexible work arrangements that allow employees to study without affecting their work, and organise internal study groups or learning exchange activities to promote knowledge sharing and peer support. Through these measures, enterprises can create a favourable learning environment and development platform, motivating employees to continually improve their educational qualifications and skills and inject new vitality into the company's sustainable development.

6.3 Professional Reflection and Implications for Practice

Through this research, I have gained valuable insights beyond academic findings, shaping my professional development in several key areas. This research process has allowed me to further refine my empirical research application, enhance my critical thinking skills, and deepen my understanding of how educational background and social networks influence career progression in state-owned enterprises.

6.3.1 Research Methodology and Professional Growth

One of the most significant takeaways from this study is the practical application of research methodologies. The combination of qualitative interviews and quantitative analysis has improved my ability to handle complex data and derive meaningful

conclusions from diverse sources of information. For example, through interviews, I could interact directly with participants and uncover their nuanced perspectives on the role of education in career advancement. This experience has taught me the importance of listening and interpreting subjective experiences, which is invaluable in my professional practice, particularly in human resource management or organisational development roles, where employee engagement and understanding are critical.

Moreover, using quantitative methods, particularly logistic regression analysis, provided a solid foundation for testing hypotheses and identifying patterns in promotion mechanisms. This experience has enhanced my use of data-driven tools, improving my capacity to make evidence-based decisions in my professional practice. Looking ahead, these skills will enable me to analyse workforce trends, assess promotion systems, and recommend data-driven policies that enhance fairness and transparency in organisational environments.

I learned to continuously self-reflect throughout the research process, identifying and adjusting my research and analytical methods. For instance, I initially relied on pre-established frameworks and expectations when conducting qualitative interviews. Still, through reflection, I realised this approach limited my ability to gain deeper insights from participants. I subsequently adjusted my interview style for more open discussions, leading to richer subjective experiences. This experience has shown me that in professional practice, reflection enables flexibility and openness in my work. It has not only improved my adaptability in research but also made me realise that ongoing self-reflection and adjustment can help me manage complex, dynamic work situations more effectively.

As a reflective practitioner, I plan to regularly reflect on the decisions and strategies I implement in my professional practice. For example, after each quarterly performance review, I will review my evaluation of employees within the department and consider whether my assessments align with actual performance and the resulting promotion

outcomes. I will examine the connections between my evaluations, employees' actual performance, and their promotion results, identifying any possible influencing factors that may have been overlooked. This reflection will help me understand essential factors within complex promotion frameworks that may have been missed and will further enrich my research findings.

Through this research, I have recognised the multi-faceted impact of educational background on career progression. I plan to regularly evaluate employees' academic backgrounds and career trajectories in my daily management work, ensuring that promotion decisions balance educational qualifications with actual performance. This will provide a fairer promotion process and help the organisation better identify and develop potential talent. Additionally, this process will prompt me to reflect on the promotion mechanism's fairness and reasonableness, helping foster a more inclusive and equitable organisational culture and thereby bringing positive change to the entire organisation.

This research process has also helped me understand that continuous learning is essential to professional growth and that learning ability is key to personal career development. I will maintain a learning mindset, improving my professional skills by reading industry reports, attending professional training, and learning new technologies. By reflecting on what I have learned, I can integrate theoretical knowledge with practical experience, producing better outcomes in practice. This combination of learning and reflection will help me stay competitive in a constantly changing work environment while also enabling me to handle complex management and decision-making challenges better.

6.3.2 Application of Research Findings in Professional Practice

The findings of this study have significant implications for my future work in human resource management. The research highlights the crucial role of educational background in career progression, particularly in its interaction with other factors such

as social networks and organisational culture. Understanding these dynamics will allow me to design and implement fairer promotion practices in the workplace. For instance, recognising the potential biases that educational background might introduce into promotion decisions, I can create training programmes and career development opportunities to mitigate these biases, ensuring that promotions are based on merit rather than social capital or informal networks. Furthermore, I have recognised the considerable value of my educational background in building social networks. Based on this insight, I will further explore and study the mechanisms of social capital formation and growth, seeking to uncover its actual value and impact within organisational structures.

Moreover, the research shows that women's educational attainment plays a more significant role in overcoming gender barriers in promotions, providing a practical path for developing gender-inclusive policies. This finding will guide me in advocating for and implementing initiatives that support women's career development, ensuring that educational qualifications are recognised as a tool to reduce workplace inequality. I will utilise the findings on the impact of educational background on women's career progression to design career development programmes specifically aimed at female employees. Specifically, I will introduce more inclusive training programmes and organise regular career development meetings to help female employees leverage their educational advantages to overcome promotion barriers. These meetings will also allow women to interact with senior management, enabling them to demonstrate their capabilities and potential better.

6.3.3 Personal and Professional Development

This research has also been a personal journey of growth. Engaging with academic literature and real-world data has enhanced my skills, enabling me to critically assess organisational systems and reflect on my biases. By adopting the approach of a reflective practitioner, I now better understand the importance of continuous learning

and adaptation in professional practice. I plan to regularly self-reflect in my future professional practice, particularly when handling complex promotion decisions. By reviewing previous reflection records and data analyses, I will ensure that I learn from past experiences and avoid repeating the same mistakes. For example, when addressing issues of gender inequality in promotions, I will reflect on data and feedback from previous promotions, analysing any potential bias factors, thereby ensuring greater fairness in future decisions.

6.4 Shortcomings and Prospects

6.4.1 Shortcomings of This Study

When exploring the impact of educational factors on career development, this study encountered some significant issues, which posed challenges to the persuasiveness of the research conclusions. Specifically, there are five main issues:

(1) Limited Sample Size

A significant issue in this study is the persuasiveness of the sample. The main shortcoming of the study is the limited generalizability of the findings. Due to the research being confined to areas where data was easily accessible, the case for this study was a state-owned bank in China. The study only selected employees from different departments and levels within this state-owned bank as samples. While this ensured data availability, the small sample size may limit the study's persuasiveness. Additionally, the representativeness of a single state-owned bank may be insufficient. Even though it is a sizeable asset-scale enterprise and holds a significant position in China's banking industry, whether it can represent the entire state-owned banking system and, by extension, broader state-owned enterprises remains debatable. This means that the findings, specific to this bank's organisational culture, policies, and practices, might be complex to generalise to other contexts. Future research should address this by

incorporating a more diverse range of state-owned enterprises from different regions and industries to enhance the generalizability of the results.

Another issue lies in the sampling process. Despite efforts to ensure samples were drawn from different regions and departments, some samples did not yield effective data feedback during the selection process, leading to a shortfall in the expected sample size, which might affect the validity of the sampling. Furthermore, regarding data authenticity, the anonymity of the questionnaire inevitably increases the uncertainty of data authenticity. This study heavily relies on self-reported data from questionnaires and interviews, subject to various biases, such as social desirability bias, recall bias, and response bias, which can seriously interfere with data authenticity. Participants might overestimate their educational qualifications or job performance to present themselves favourably. Those surveyed might consciously withhold information, affecting data authenticity. Even if respondents do not intentionally hide information, they might provide inaccurate or incomplete information due to memory issues or other cognitive biases, which also interfere with sample authenticity. During semi-structured interviews, responses beyond preset questions typically followed the interviewees' discretion, which might not be comprehensive. Additionally, time constraints made it difficult for the interviews to capture all aspects of the enterprise fully. All these factors inevitably interfere with the research sample to some extent, impacting the conclusions' persuasiveness.

(2) Validity of Data Over Time

This study's data collection method involved gathering data within a single time frame, akin to collecting data at a single time point. While the data is timely, it cannot reveal whether it changes over time. In reality, state-owned enterprise reforms are ongoing, which can significantly change the current situation compared to ten or twenty years ago. This implies that to understand the longitudinal correlation between education and career development, the variation of this correlation over time should also

be included in the research scope. This requires more refined data collection methods, potentially involving stratified sampling of employees from different age groups and tenure periods. Only by doing so can we more clearly understand how educational attainment influences employee promotions over several decades or throughout an entire career. Future research should strengthen and supplement this aspect.

(3) Limited Scope of Educational Background

Although this study focuses on the impact of formal educational attainment (initial and final education levels), it does not fully explore the influence of other forms of education and learning, such as professional certifications, vocational training, and informal learning experiences. These alternative forms of education can undeniably play significant roles in career development. Yet, they have not been effectively included in the study, and their impact on promotions cannot be observed. Future research should include a broader range of educational experiences and more varied forms of continuing education within the scope of academic background to be statistically measured, providing a more comprehensive understanding of how education influences career development.

(4) Influence of Multiple Factors

This study focuses on the impact of non-performance factors on promotions, yet performance factors also typically influence promotions. Although performance factors might be dependent variables of many non-performance factors, this study does not discuss these factors extensively. Similar to the promotion tournament mentioned earlier, promotions within state-owned enterprises are usually related to employees' performance. The different performance assessment methods across departments and job types make it difficult to obtain comparable data within the same sample, thus interfering with research on performance impact. Consequently, this study avoids the influence of performance factors and focuses more on the effects of educational factors on promotions, including the manifestation and underlying reasons for this impact.

Promotions result from the interplay of multiple factors, and this study concentrates on the influence of educational factors, avoiding overly complex models that could increase research difficulty and interfere with results. However, the lack of research on other factors might lead to content inadequacies. Future research could include other factors such as work experience, job performance, and leadership.

Additionally, this study only considers the internal factors influencing promotions while ignoring external factors such as the economic conditions, industry trends, and technological advancements impacting career development and promotion opportunities. Future research should consider these external factors or incorporate them as relevant factors in studying the impact of educational background on promotions. Combining these external variables will further the understanding of the interaction between educational background and career development.

6.4.2 Prospects for Future Research

Future research can expand in the following areas:

(1) Broader Research Scope

China has many state-owned enterprises (SOEs) with diverse types and characteristics. Many companies across various industries can serve as research samples. Each sector has unique features, cultures, and systems, making them suitable for future research expansion. A broader range of case studies will help understand more common situations in SOEs and the unique characteristics of different industries. This will assist in identifying industry-specific and regional differences, providing more targeted insights for policymakers and organisational leaders.

(2) Policy and Current Situation Research Based on Historical Context

Chinese government policies typically exhibit continuity but also significant differences in each historical period. This characteristic is also reflected in SOEs. SOEs have undergone various transformations and reforms from the planned economy to the market economy era. During this time, their systems and cultures have changed.

Distinguishing the promotion mechanisms of SOE employees at different time points can yield more unique and pertinent research results. Future research can consider incorporating studies from multiple time points to investigate the details and characteristics of SOE promotion mechanisms across different eras.

(3) More Objective Data

This study primarily collects objective information through questionnaires, but the objectivity of questionnaires is still insufficient. Future research should integrate more objective data sources to address this shortfall. Subsequent research can utilise officially certified educational records, performance appraisals, and third-party evaluations to provide more reliable measures of academic background and job performance. Combining these objective data with information gathered from questionnaires will help validate findings and reduce biases, leading to more robust conclusions.

(4) Correlation Between Career Development Paths and Promotion Strategies

In the modern workplace, career development paths have become increasingly diverse. Some employees might choose to continue working in a particular field or company, gradually accumulating experience and advancing step by step. In contrast, others might opt for cross-field, cross-industry, or cross-company development to achieve faster promotions. The diversity in career development paths might influence employees' promotion strategies. For instance, those choosing long-term development within an organisation might focus more on the organisation's promotion policies, incentives, and the impact of educational attainment on promotions. They might put more effort into improving their education and professional skills to meet the organisation's promotion requirements. Conversely, those inclined towards cross-company development might focus more on market career opportunities and personal career competitiveness, with educational attainment being just one of many considerations. Future research can explore whether there are differences in promotion expectations and strategies among employees on different career development paths and

the impact of educational attainment on these paths. This can be achieved through in-depth interviews, questionnaire surveys, or case studies, analysing the opportunities and challenges employees face on different career paths during promotions and how they adjust their strategies based on other career environments.

(5) The Differential Effects of Promotion Mechanisms

This study is limited to examining the factors influencing the promotion mechanism of a single state-owned bank. Future research could expand beyond exploring a single promotion mechanism to analyse the effects of various promotion mechanisms. Specifically, different state-owned enterprises may have varying factors influencing their promotion mechanisms, and the dominant factors may also differ. By analysing the differential outcomes of these various promotion mechanisms—such as the transparency, effectiveness, and fairness of promotions—research can explore the practical implications of these influencing factors.

First, the transparency of promotion mechanisms is a crucial factor affecting employees' career development. Transparent promotion mechanisms can enhance employees' trust and loyalty to the enterprise, reducing potential biases and favouritism in the promotion process. Future research can compare the practices of different state-owned enterprises regarding promotion transparency, analysing which approaches effectively increase transparency and how these practices can be implemented in other enterprises.

Second, the effectiveness of promotion mechanisms is directly related to employee motivation and overall enterprise performance. Effective promotion mechanisms should be able to identify and elevate employees who genuinely have the ability to contribute significantly, thereby motivating employees to improve their skills and actively engage in their work continuously. Research can investigate the application of different promotion mechanisms in employee performance evaluation and promotion decisions, assessing their effectiveness and providing optimisation suggestions.

The fairness of promotion mechanisms is also a key concern for employees. Fair promotion mechanisms ensure that every employee has an equal opportunity to be promoted based on their efforts, avoiding unfair treatment due to gender, age, race, and other factors. Future research can compare the performance of different enterprises in terms of promotion fairness, analyze which factors might lead to unfairness, and propose measures for improvement.

By conducting comparative studies of promotion mechanisms in various state-owned enterprises, researchers can identify key factors that affect the outcomes of these mechanisms, providing empirical evidence for improving promotion strategies. This not only helps optimise internal promotion mechanisms within enterprises, enhancing employee satisfaction and work efficiency but also provides valuable insights for policymakers, promoting continuous improvement in the management systems of state-owned enterprises.

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Appendix

A.Questionnaire

The questionnaire for this study is designed as follows:

Investigative questions	Options (as in computer software settings)
What is your job title?	☐ Ordinary employee ☐ Deputy Section chief ☐ Section chief ☐ Deputy Director ☐ Director
What is your gender?	☐ Man ☐ Woman ☐ Confidentiality
What was the first full-time initial educational attainment you obtained?	☐ Associate bachelor degree and below ☐ Bachelor degree ☐ Prestigious university's bachelor degree
What is your current highest level of education?	☐ Associate degree and below ☐ Bachelor ☐ Master ☐ Doctor
Before getting promoted, did you work in the core departments of your organization? (Promotion Sample Questionnaire)	☐ Yes ☐ No
What do you think is the most important reason for your	

promotion: Higher educational attainment, experience in key positions, having made significant contributions, age advantage, social relations, strong work ability, connections, being well-informed, etc.(Promotion Sample Questionnaire)	
When getting promoted, compared to your competitors, did you have an educational advantage? (Promotion Sample Questionnaire)	☐ Yes ☐ No
In your opinion, the colleagues who were promoted last time did so because they: Had higher educational attainment, experience in key positions, had made significant contributions, age advantage, social relations, strong work ability, had connections, were well-informed, etc. (Not promoted sample questionnaire):	
When getting promoted, compared to your competitors, do you think you had an advantage in the following aspects: Professional knowledge, educational attainment, ability to think through problems, problem-solving ability, being younger, etc. (Promotion Sample Questionnaire)	
Do you think the promotion system in your organization is fair and reasonable? (Promotion Sample Questionnaire)	☐ Yes ☐ No
The following questions address your situation at your last rank (Promotion Sample Questionnaire):/The following questions are for the current rank (Not promoted sample questionnaire):	
What is the educational attainment of your immediate superior?	☐ Associate degree and below ☐ Bachelor ☐ Master ☐ Doctor

Is there any overlap between your graduation institution and that of your immediate supervisor?	() Yes () No
Do you have the same major as your immediate supervisor?	() Yes () No
Is your graduation institution in the same province as your place of work?	() Yes () No
For how many years have you worked at the current level?	
What is your average job completion during your tenure?	
Have you gained improvement of educational attainment in the meantime?	() Yes () No

The survey aimed to examine the impact of educational background on promotion opportunities within state-owned enterprises, with a specific focus on analysing how factors such as educational attainment, geographic connections, and similarity in educational backgrounds with direct supervisors influence career progression.

Survey Data Summary

Category	Number of Respondents	Percentage (%)
Total Responses	1457	100%
Promoted Respondents	773	53.1%
Non-promoted Respondents	684	46.9%
Promotion Levels		
Level 1	784	
Level 2	385	
Level 3	195	
Level 4	93	
Initial Educational Attainment		
Below Bachelor's	587	
Ordinary Bachelor's	499	

Prestigious University Bachelor's	371	
Final Educational Attainment		
Bachelor's or Below	86	
Bachelor's	612	
Master's	662	
Doctoral	97	
Other Factors		
Educational background overlaps with the immediate leader	149	
Similar educational background to the immediate leader	449	
Upgrading of educational attainment during the term of office	446	30.8%
Educational Background Geographic Advantage	586	40.2%
Gender Distribution		
Female	724	49.7%
Male	733	50.3%

While the survey provides valuable insights into educational background and career progression, it may be limited by its sample scope within state-owned enterprises. Further analysis will seek to corroborate these trends through qualitative interviews and examine how these factors influence career mobility across different organisational structures.

B.Interview Transcript

Here is a summary of selected interview records, including fifteen transcripts. To protect participant privacy, all sensitive personal information has been concealed, presenting only core information relevant to the research. The content has been refined and summarized, with non-standard expressions removed, and has been translated into English. Due to language differences, some information that was difficult to translate accurately has been omitted.

Interview 1

Interviewer: Thank you for joining us for this interview today. To start, how long have you worked at this bank?

Respondent: I've been with this bank for about seven years now.

Interviewer: And what's your current position?

Respondent: I'm currently a client manager at a branch.

Interviewer: Based on my position levels, what level would your position correspond to?

Respondent: It would be section level.

Interviewer: Let's get into the main topic. My research focuses on the relationship between educational background and promotion. In your opinion, what role has your education level played in your career development?

Respondent: I think it's been significant. My educational background has been beneficial, especially in terms of advancing my position. In my department, a higher education level is generally viewed as an advantage.

Interviewer: Is that advantage quite noticeable?

Respondent: Yes, it's quite noticeable. I've felt this multiple times. Colleagues with more prestigious educational backgrounds are usually considered to have stronger capabilities; that's the general perception here.

Interviewer: How does that directly influence promotion?

Respondent: It generally means more recognition. If you have a strong educational background, you're seen as important. Colleagues think so, and leaders do as well. People who are valued tend to be promoted more easily, as they get more chances to showcase their abilities, leading to better performance. So I believe having strong educational qualifications is quite crucial.

Interviewer: Could you elaborate on how your own educational background has impacted your promotions?

Respondent: My educational background is relatively good; I studied finance at a well-regarded university.

Interviewer: You don't have to disclose the specific institution, but was your alma mater a 985 or 211 school?

Respondent: It's a 985 institution, although it's more of a STEM school, and finance isn't one of its strongest programs.

Interviewer: Still, that's an impressive school.

Respondent: I suppose so. When I started, my educational background did provide some advantages, so my promotions have been fairly quick.

Interviewer: Do you think this is because of your educational background?

Respondent: Clearly, I think it is.

Interviewer: Let's discuss your surroundings. Are you aware of any colleagues who received promotions based on their educational background?

Respondent: Yes, some colleagues have benefited from having an educational advantage when it comes to promotions.

Interviewer: Would you be willing to provide specific examples?

Respondent: I can't think of specific examples right now.

Interviewer: Then let's continue discussing the phenomenon. Do you think employees with higher education are more likely to get promoted?

Respondent: Yes, usually, having a higher level of education does increase the chances of promotion, as I mentioned earlier, especially in business roles.

Interviewer: You mentioned business roles. Do you think the impact of education on promotion varies across different roles?

Respondent: There might be some differences. I think some roles don't necessarily require high educational qualifications, so the impact on promotion may not be as strong, such as in support roles. But overall, having educational advantages does help.

Interviewer: You mentioned earlier that you graduated from a top engineering university with a finance degree. Is your highest degree a bachelor's?

Respondent: No, I pursued a master's in finance while working.

Interviewer: Do you believe that this educational advancement positively influenced your promotion?

Respondent: Definitely. I believe it played a role in my promotion.

Interviewer: How exactly did it help?

Respondent: During my graduate studies, my professional skills indeed improved. While not everything I learned was directly from school, it still provided valuable support.

Interviewer: So, would you say that the benefit of further education for promotion lies in the improved abilities it brings?

Respondent: That's one way to put it. There are other impacts too, but improving work ability is a definite benefit.

Interviewer: What other advantages does your education level provide in your current role?

Respondent: I've undergone professional training, so I have a better understanding of certain technical issues. Also, my English proficiency is higher since I studied it seriously during my graduate studies.

Interviewer: Do you think education impacts promotion differently across levels?

Respondent: I'm not too sure. I haven't really thought about this. There may be some differences, but they might be inconsistent, so I'm not certain.

Interviewer: Moving on to other factors, what do you think, apart from education, affects promotion? And compared to education, which factor is more important?

Respondent: I believe networking is crucial. This is likely a significant factor in promotion and might be even more important than education. Networking is a direct promotion booster, likely more impactful than education.

Interviewer: Do you know if there are colleagues in your department with similar educational backgrounds to their supervisors? Do you think these shared backgrounds help with promotion?

Respondent: Similar educational backgrounds are relatively common in our department. For instance, most of my previous supervisors had degrees related to finance. I'm not sure if this affects promotions.

Interviewer: Let's discuss another topic. Do you believe there's any explicit or implicit gender discrimination in promotions?

Respondent: I'm not sure if it's discrimination, but women definitely face slightly more challenges in getting promoted. The leadership is predominantly male, making it relatively more difficult for women to advance.

Interviewer: You don't see it as discrimination. What do you think causes this imbalance?

Respondent: I'm not sure. It's not something I'm very familiar with or have thought about much.

Interviewer: In your view, how does educational background influence promotions? You mentioned that higher education attracts more attention. Is this recognition obvious?

Respondent: Yes, it's very apparent. I've experienced this myself. When I first joined, colleagues noticed that my education level was higher than theirs. I also believe my leader's attention to me was related to this.

Interviewer: So your leader paid a lot of attention to you? Do they treat other colleagues with high education similarly?

Respondent: If they did, it wouldn't exactly be special treatment. Also, there weren't other colleagues with my education level in our department at the time.

Interviewer: Are you saying that none of your colleagues are from 985 universities?

Respondent: That's right.

Interviewer: After some time, did this attention continue?

Respondent: I think it persisted for quite a while. After a while, I got closer with some colleagues, so we got to know each other well. But when interacting with less familiar colleagues, they still seemed to pay attention to my educational background.

Interviewer: Did your direct supervisor maintain this focus on you?

Respondent: Yes, he valued my work for a long time. I was doing my job well.

Interviewer: So was this attention primarily due to your education?

Respondent: Not entirely; once people get to know each other, attention is based on performance. But initially, education certainly influenced it. First impressions are important.

Respondent: I think that's all I have to say for now.

Interviewer: Thank you for participating in the interview. Rest assured that any sensitive or identifying information in today's content will be anonymized.

Respondent: No worries, I'm not concerned about privacy here.

Interview 2

Interviewer: Thank you for taking the time to participate in this interview today.
How long have you worked at this bank?

Respondent: It's been seven years.

Interviewer: And what's your current position?

Respondent: I'm a business manager at a branch, primarily handling corporate clients.

Interviewer: According to my position ranking, what level would your position correspond to?

Respondent: Probably section-level.

Interviewer: Great, let's discuss your educational background. Do you think your educational background has played a role in your career development?

Respondent: I think it's been significant. Before I pursued my MBA, I didn't particularly notice its influence, but after completing my MBA while working, the role of education became much clearer. Are you familiar with the MBA?

Interviewer: I know a bit about it; it seems that many in your industry opt for that degree?

Respondent: Yes, that's true. The MBA greatly helped enhance my skills in business and management, giving me more opportunities within the company to demonstrate my capabilities. My promotion was definitely aided by holding this degree.

Interviewer: Can you elaborate on how the MBA has specifically helped in your work?

Respondent: The MBA program included courses in strategic planning, team collaboration, and decision-making, which gave me a systematic boost in these areas. These skills are incredibly practical in our bank, such as when designing service plans for corporate clients or managing team assignments. It also made me more competitive, allowing me to take on more challenging tasks.

Interviewer: Do you feel that the MBA directly helped your promotion?

Respondent: Yes, I believe so. Although there's no official requirement for a master's degree for promotion, I felt that completing the MBA earned me more recognition from both colleagues and leaders. It could be due to the stronger professional skills I developed, and my promotion timeline ended up being faster than expected.

Interviewer: It sounds like the MBA has been highly beneficial to your career.

Respondent: I believe so. It's a very application-focused degree. The content I learned has proven to be very useful.

Interviewer: In your opinion, does having a higher education increase employees' chances of promotion?

Respondent: I think it helps — having a better academic background can provide some advantages when it comes to promotion.

Interviewer: Specifically, do you have colleagues who have gained promotion advantages due to their educational background?

Respondent: I'd say yes. For example, I know a colleague who was promoted to a management position shortly after completing their degree. Those who graduated from prestigious schools tend to have more promotion opportunities.

Interviewer: Are you willing to share other examples? For instance, have others gained promotion after pursuing further education?

Respondent: Yes, for example, a colleague of mine in software operations pursued a master's in computer science while working. After graduating, he gained greater authority in technical matters and gradually took on management responsibilities. I think further education in specific fields can significantly help with career development.

Interviewer: So, the technical expertise he gained through his studies helped elevate his status?

Respondent: Exactly.

Interviewer: So you believe that the ability improvements from education helped his promotion?

Respondent: Yes.

Interviewer: Do you have any similar examples?

Respondent: My former supervisor was promoted shortly after improving his education level. I'm not sure if the two are directly related, but I think his educational background likely played a role. Higher-level promotions seem to have an unspoken educational threshold, and my supervisor might have pursued further education to meet that criterion.

Interviewer: Could you explain what you mean by this “unspoken threshold” ?

Respondent: It's just my perception. It seems like those at higher levels don't usually have low educational backgrounds. Of course, this is just my guess, so I won't go into detail.

Interviewer: Regarding the positive impact of education on promotion, do you think this impact differs across various job levels?

Respondent: I believe it's fairly consistent. People's educational backgrounds remain stable, and not everyone chooses to further their education, so those who have this advantage will continue to have it.

Interviewer: Let's talk about other factors. Besides educational background, what other factors do you think affect promotion?

Respondent: Honestly, connections are quite important, especially in state-owned enterprises. Strong work performance and recognition from leaders are also essential. Sometimes, networking can have a more direct impact than educational background. Maintaining good relationships with colleagues, especially with leaders, is also crucial.

Interviewer: Let's discuss the educational background of leadership. Do you know if there are shared educational backgrounds, such as similar majors or alma maters,

between you and your department leaders? Does this connection help in establishing closer relationships or even facilitate promotion?

Respondent: When I first joined, many people in my department graduated from the same university, including me, so we shared the same alma mater. This helped foster closer relationships when I first started, but I didn't notice a clear impact on promotion.

Interviewer: What if it were with a direct supervisor, such as your department head? Would sharing the same alma mater help with promotion?

Respondent: I can't say for sure if it helps with promotion, but it certainly makes relationships closer.

Interviewer: Let's touch on a different topic — gender discrimination in the workplace. Do you think women face challenges in career advancement?

Respondent: I have some experience with this. I do feel that women have a harder time getting promoted. Our department has a lot of female employees, but most leaders are male, and the proportion of women in leadership is relatively low. Advancement is clearly more challenging for women. I also notice that women here generally have higher academic qualifications than men, and I feel that the company's entry requirements for men are somewhat lower. So, the pressure to advance exists from the very beginning.

Interviewer: Do you think that education helps women more in terms of promotion? In other words, does it give them an advantage in overcoming gender-related obstacles?

Respondent: It seems so. I've observed that female colleagues with higher qualifications tend to be promoted more easily. It might also be because women often have higher qualifications at entry.

Interviewer: Do you feel that this disparity in advancement for women is fair? Does it need to change?

Respondent: It's definitely unfair and needs to change. From my observations, this change is happening, and I see more opportunities for women to advance in our company. But further change is still necessary.

Interviewer: What kind of further changes would you suggest?

Respondent: Fairness in job assignments is crucial; this is the basis for achieving fair results. Women often bear greater family responsibilities, such as taking care of children, and this affects their energy at work. I think that needs to change. Of course, this change requires a societal shift, not just actions from companies.

Interviewer: Thank you very much for sharing. Rest assured, today's interview will remain anonymous, and any identifying information will be removed.

Respondent: Thank you, that sounds reassuring.

Interview 3

Interviewer: Thank you for agreeing to this interview today. How long have you been working at this bank?

Respondent: I've been working here for 12 years.

Interviewer: And what is your current position?

Respondent: I'm a deputy section chief in the finance department, primarily responsible for financial accounting tasks.

Interviewer: My research theme focuses on the correlation between educational background and promotion. How do you think your education has influenced your career development?

Respondent: I believe it's had a significant impact. My background is in accounting, and after working for several years, I pursued further studies and obtained a master's degree in accounting. This education deepened my financial knowledge and broadened my understanding of business. It also improved my analytical abilities with complex financial issues, and shortly after completing my studies, I received a promotion.

Interviewer: Why did you choose an accounting degree for further studies? It seems that many in your industry opt for an MBA.

Respondent: They're quite different, and since I work in finance, the accounting degree is more relevant for me.

Interviewer: How beneficial do you think further education is for career advancement?

Respondent: I think it's very helpful. Going back to school allowed me to gain a better grasp of new knowledge and fill in the gaps in areas I hadn't studied systematically before. This was a significant boost to my abilities—at least, it was for me.

Interviewer: So, it would be fair to say that your degree directly contributed to your promotion?

Respondent: That's correct. I believe the role of further education in my promotion was significant.

Interviewer: Do you know of colleagues who received promotions due to their educational background?

Respondent: I'm not too sure about that. I don't pay much attention to others' educational backgrounds, but I've noticed that many of the recently promoted colleagues tend to have good educational qualifications.

Interviewer: You mentioned recent promotions—what about in the past?

Respondent: I'm not very familiar with past trends.

Interviewer: Do you think employees with higher education are more likely to be promoted?

Respondent: Probably, though I'm not entirely sure.

Interviewer: Which university did you attend for your undergraduate degree? You don't need to specify the name, just if it was a “211” or “985” university.

Respondent: It was a “211” university.

Interviewer: Your initial degree sounds excellent. Did it help with your career progression?

Respondent: It didn't seem to provide much help, and my initial degree wasn't particularly advantageous in my department. Compared to my master's, further study proved much more helpful for advancement.

Interviewer: So, by “helpful,” you mean an educational advantage?

Respondent: That's part of it, but as I mentioned earlier, it was more about the significant skills boost I gained. This advantage was more pronounced.

Interviewer: Are you saying that after completing your master's, you gained both an educational advantage and a skills advantage compared to your colleagues?

Respondent: I believe so. Completing my master's thesis really enhanced my skills—it was a transformative process.

Interviewer: Do you think the influence of educational advantage on promotion varies at different job levels?

Respondent: I think it's more noticeable at lower levels, as promotion at higher levels is more complex, with many influencing factors.

Interviewer: Let's talk about other aspects. Besides educational background, what other factors do you think affect promotion? Compared to education, which factor is more important?

Respondent: I would say ability. It's undoubtedly the most important factor.

Interviewer: What specific types of abilities?

Respondent: Many, such as professional skills. This is crucial, especially in our line of work, as your ability to perform well relies heavily on your skill set. I believe this ability is also related to education, as I mentioned earlier.

Interviewer: What about other skills? Many interviewees have mentioned the importance of maintaining good interpersonal relationships.

Respondent: That's definitely important, but it's not the most crucial. It's an added bonus, but in the end, it's all about capability, which is key.

Interviewer: Speaking of other aspects, are you aware of colleagues with a similar educational background to their direct supervisors? Do you think this similarity in education helps their career progression?

Respondent: A similar professional background is indeed important in our field, where the role is highly specialized. As you know, many fields are related to finance, but accounting and financial management are the most directly relevant. In finance roles, graduates in these areas can collaborate better and gain more understanding and support from superiors, which can be helpful in promotions.

Interviewer: So your direct supervisors share your field of study?

Respondent: Yes, most of my direct supervisors are accounting majors. Our roles require a certain level of professional expertise.

Interviewer: Do you think it increases promotion chances if employees share the same alma mater as their direct supervisors? Have you observed this?

Respondent: That's hard to say.

Interviewer: One last question: do you believe there's explicit or implicit gender bias in promotions within the company?

Respondent: It definitely exists. In our department, for instance, we only have two male employees, and they're both in leadership positions. I wouldn't call it outright discrimination, but the results are indeed skewed.

Interviewer: Besides gender bias, are there other reasons for this imbalance?

Respondent: I think our two male leaders are very capable, so their supervisory roles make sense. But the overall outcome still seems imbalanced.

Interviewer: What do you think contributes to this imbalance?

Respondent: I'd say women's abilities aren't fully acknowledged; maybe men's work is amplified when they achieve similar results. That's just my impression—I'm not sure about other reasons.

Interviewer: Thank you very much for sharing. Rest assured, today's interview content will remain anonymous and private.

Respondent: Thank you.

Interview 4

Interviewer: Thank you for agreeing to this interview today. How long have you been working at this bank?

Respondent: I've been with the bank for about 26 years.

Interviewer: And what is your current position?

Respondent: I'm the deputy branch manager, primarily responsible for daily operations.

Interviewer: Do you feel that your educational background has influenced your career progression?

Respondent: Honestly, I don't think my educational background has had much impact on my promotions.

Interviewer: What's your academic background?

Respondent: I studied accounting at an ordinary university for my bachelor's degree.

Interviewer: Did you pursue any further education?

Respondent: No, I didn't. I believe that promotions rely more on job performance and accumulated experience than on education.

Interviewer: Have you seen colleagues advance in their careers because of their educational backgrounds?

Respondent: Yes, some younger colleagues with prestigious academic backgrounds have started off a bit faster, but ultimately, I think that actual performance is what matters in the long run. It's difficult to reach higher-level positions based solely on education.

Interviewer: Do you think employees with higher education are more likely to be promoted?

Respondent: In some roles, yes—especially at the entry level. But I believe that, in the long run, those who rise to the top are the ones with practical work skills and

leadership qualities. Education may get you through the door, but it's not the deciding factor.

Interviewer: Why didn't you pursue further education after joining the bank, considering that many people do?

Respondent: It's simple—I think practical experience and capability matter more. For me, an additional degree wouldn't offer a significant advantage, so I didn't consider further study. Many colleagues did pursue further education, but it's not something I prioritize.

Interviewer: How do you view in-service education for career development?

Respondent: I think advanced study might broaden knowledge or deepen expertise for those just starting their careers, but for those of us with many years in the field, experience matters more. I've seen colleagues pursue additional qualifications without gaining a noticeable advantage.

Interviewer: Do you feel your current academic background provides an advantage in your role?

Respondent: Frankly, no. My job relies on accumulated business knowledge and familiarity with processes that come from hands-on practice, not from academia.

Interviewer: Besides education, what other factors do you think influence career advancement? How would you compare these to the importance of education?

Respondent: I think job performance and interpersonal relationships are the most important. In my view, these outweigh educational background, especially in positions where accumulated experience plays a large role.

Interviewer: Are you aware of colleagues who share similar educational backgrounds with their direct supervisors? Do you feel this commonality has helped their promotions?

Respondent: Yes, a few people share similar fields with their supervisors, but I haven't noticed this making a difference in promotions. Advancement still depends primarily on job performance.

Interviewer: Do you believe there is any explicit or implicit gender bias in promotions?

Respondent: I haven't noticed it personally, though I have seen female colleagues face challenges in advancing. However, I think this is more due to the demands of certain roles than any gender-based reason.

Interviewer: Thank you for sharing your insights. Please rest assured that any sensitive information will be anonymized and your privacy will be protected.

Respondent: That's fine. I don't see anything particularly sensitive here, so go ahead with your notes.

Interview 5

Interviewer: Thank you for agreeing to this interview today. How many years have you worked at this bank?

Respondent: I've been with the bank for about 20 years.

Interviewer: And what is your current position?

Respondent: I'm a department section chief at a branch.

Interviewer: How has your educational attainment influenced your career development?

Respondent: I believe education has had a significant impact on my career, especially after completing my MBA. It greatly helped me expand my network. Through the MBA program, I connected with industry peers and outstanding classmates, and this network has become a valuable asset in my work.

Interviewer: You mentioned that networking is very important. Could you elaborate on how it has benefited your work?

Respondent: The network I built during my MBA has been incredibly useful in my work. For example, when I encounter business issues, I can reach out to classmates at other banks to discuss solutions. Plus, I've indirectly connected with several important clients through this network, which has helped me achieve better results.

Interviewer: So, did the MBA significantly impact your promotion?

Respondent: Yes, absolutely.

Interviewer: What inspired you to pursue an MBA?

Respondent: I noticed that some colleagues and friends were pursuing similar degrees. After learning more about it, I decided to go for it myself.

Interviewer: On a similar note, have you observed colleagues advancing due to their educational backgrounds?

Respondent: Yes, it does happen. Some colleagues who obtained higher degrees, particularly master's degrees, have been promoted faster. I think the company values higher education, especially for key roles.

Interviewer: You mentioned master's degrees. Is there something special about them?

Respondent: A master's is usually the highest level most people pursue, given the challenges and time required for a doctorate. Bachelor's degrees are quite common here, so a master's degree stands out, which is why many people choose it as their endpoint.

Interviewer: So, do many of your colleagues pursue master's degrees while working?

Respondent: Yes, quite a few, and some even choose an MBA like I did, which aligns with our career field.

Interviewer: Do you think employees with higher education are more likely to be promoted?

Respondent: I believe so. Education not only represents a person's capabilities but also reflects their commitment to self-improvement. Programs like an MBA teach practical management skills and can be an advantage in the eyes of colleagues and supervisors.

Interviewer: Do you feel the impact of educational qualifications on promotions differs across job levels?

Respondent: I think the impact is more pronounced at lower levels, where academic qualifications stand out more because other competencies, like experience, take time to accumulate. When I evaluate new colleagues, I look at their education. But after they've worked for a few years, I start focusing on other qualities.

Interviewer: You mentioned paying attention to colleagues' education. Do you place more emphasis on those with higher qualifications?

Respondent: Definitely, and it's a natural reaction. Many of my colleagues do the same. When we don't know a colleague well, their education is the first aspect we can judge.

Interviewer: What advantages does your educational background provide in your current role?

Respondent: My original degree didn't provide much of an advantage—it was a regular bachelor's. But my MBA elevated my qualifications. More importantly, it equipped me with a systematic management mindset, which has improved my efficiency in managing teams and assigning tasks. The network I developed during my MBA has also been a key support for expanding business and cross-departmental collaborations.

Interviewer: Besides educational background, what other factors do you think influence promotions? How would you weigh these against education?

Respondent: Education is essential, but interpersonal relationships and work performance are equally important. Education may be the key to opening the door for promotion, but actual advancement relies on tangible results and leadership approval.

Interviewer: Do you know of colleagues with similar educational backgrounds to their direct supervisors, such as the same major or alma mater? Do you think these similarities help with promotion?

Respondent: Some colleagues share similar educational backgrounds with their supervisors, which is common, especially in finance or management majors. I think this similarity can foster closeness, potentially aiding their relationships. However, I'm not certain if it directly impacts promotions, as many people share these connections. I'm less sure about the influence of alumni networks.

Interviewer: Do you believe the company exhibits any explicit or implicit gender bias in promotions?

Respondent: From my observations, there's no clear gender bias, though it can be a bit more challenging for women to advance in some roles. This may be due to departmental structure and role requirements rather than systemic discrimination.

Interviewer: Thank you very much for sharing your insights in such detail. Rest assured that today's interview will remain confidential and won't include any personal information.

Respondent: That's fine. I'm comfortable with the information shared.

Interview 6

Interviewer: Thank you for agreeing to this interview today. To begin, how long have you been working at this bank?

Respondent: I've worked at the bank for about 28 years now.

Interviewer: And what is your current position?

Respondent: I'm a director in a department at a provincial branch.

Interviewer: How do you feel your educational attainment has impacted your career progression?

Respondent: I believe my educational background has been very significant for my career. As a female employee, having a degree allowed me to compete on equal footing with male colleagues. Education is often seen as a relatively fair basis for advancement, giving women a chance to demonstrate their abilities rather than being overlooked due to gender.

Interviewer: You mentioned that education provides a relatively fair way to compete. Could you elaborate on how this manifests in your work?

Respondent: I think educational attainment provides a clear standard, putting everyone on an equal footing in the competition. For women especially, education can help break down gender biases. For example, in selection and evaluations, having a high level of education often gives us more opportunities to prove ourselves.

Interviewer: So, what is your educational background?

Respondent: I have a standard bachelor's degree.

Interviewer: Do you feel this degree has given you an advantage?

Respondent: When I first joined, having a bachelor's degree was relatively rare among my colleagues, so it did give me an edge.

Interviewer: How does your educational background benefit you in your current position?

Respondent: In the early stages of my career, my degree did give me a competitive advantage. But at my current level, the advantages now stem more from my management experience and my ability to collaborate with different departments.

Interviewer: After joining the bank, did you pursue further studies? If not, what was the reason?

Respondent: No, I didn't pursue any further studies, and my highest degree remains my bachelor's. Over the years, I've come to realize that career progression depends more on work capability than just educational qualifications, so I didn't see the need for a higher degree.

Interviewer: Do you feel the impact of educational attainment on promotions differs across different job levels?

Respondent: Yes, I think it does. In junior positions, education is quite impactful since it's one of the few ways to show individual capability upon joining. But as you advance, actual work performance and leadership skills become more important, and the influence of educational background decreases.

Interviewer: What are your thoughts on the impact of further studies during employment on career progression?

Respondent: I think further studies can be beneficial for younger employees, particularly before they move into management. It offers more theoretical and professional knowledge. But for those of us in higher positions, experience and practical abilities matter more.

Interviewer: Have you noticed instances where colleagues received promotions due to their educational background?

Respondent: Yes, I've seen colleagues who advanced quickly in junior positions after pursuing higher education, especially when they first joined the company. High qualifications are more valued initially. When I'm involved in evaluating promotions, I also consider education.

Interviewer: So, you believe employees with higher education should have better chances of promotion?

Respondent: To a certain extent, yes, especially in entry-level roles. Higher education can enhance their competitiveness and give them more opportunities to demonstrate their abilities. As a manager, I'm more inclined to give them these opportunities because education somewhat assures capability.

Interviewer: Besides education, what other factors do you believe influence promotions? And how would you compare these to educational background?

Respondent: Besides education, I think work performance and interpersonal relationships are just as important. In state-owned enterprises, good interpersonal relationships and recognition from superiors are often key to promotion. Education might be an initial advantage, but ultimately, advancement relies on actual performance. Potential for growth is also crucial. A promising employee is one who demonstrates the ability to continuously improve, encouraging leadership to consider them for higher responsibilities.

Interviewer: Could you elaborate on what you mean by “potential for growth” ?

Respondent: Specifically, after joining the workforce, many employees' abilities don't improve significantly compared to when they were in school, where they were constantly learning new things. After starting work, some employees seem to lose the drive to learn, and I believe this is what causes them to plateau. Those who show a willingness to learn and take on challenges prove their reliability to leaders, making them more likely to advance.

Interviewer: Let's explore other ways education might influence promotions. Are there colleagues in your department with similar educational backgrounds to their direct supervisors, such as the same major or university? Do you think this similarity aids in promotions?

Respondent: Similar educational backgrounds are relatively common in our field, and they might have some influence, though not a substantial one since it's so frequent. Having a similar background can naturally foster closeness, which helps build relationships, but I don't think it's enough to significantly impact promotions.

Interviewer: Do you believe the company exhibits any explicit or implicit gender bias in promotions?

Respondent: Overall, I don't think there's any obvious discrimination, though it's indeed harder for women to be promoted. I feel that education offers women a fairer opportunity in this regard, as it's a more impartial competitive criterion. But there's still some gender bias at higher levels, where it remains challenging for women to enter top management roles.

Interviewer: Thank you for your detailed insights. Rest assured that today's interview will remain confidential and won't include any private information.

Respondent: That's fine. I'm comfortable with the information shared today.

Interview 7

Interviewer: Thank you for taking the time to join us today. To start, how long have you been working at this bank?

Respondent: I've been with this bank for about eight years now.

Interviewer: And what is your current position?

Respondent: I'm an assistant section manager, mainly responsible for overseeing the daily operations within our department.

Interviewer: So, what is your educational attainment?

Respondent: I completed my undergraduate studies at a 211 university, and after working for a while, I left to pursue a master's degree. After graduating, I joined this bank.

Interviewer: How do you feel your advanced education has impacted your career development?

Respondent: I believe it has had some influence. A high level of education is definitely a strong endorsement, which helps in gaining quicker recognition from colleagues and superiors. However, I wouldn't say it's the most critical factor.

Interviewer: So, what do you consider to be the most critical factors?

Respondent: Competence and hard work are key. While ability is important, being diligent and committed is crucial. And as a woman, sometimes we need to put in extra effort to prove ourselves.

Interviewer: You mentioned that women need to work harder to gain recognition in the workplace. Could you elaborate?

Respondent: Early in my career, I certainly felt this way. As a woman, I always felt I had to work harder than my male colleagues to get recognized for my capabilities. But as I gained more experience, along with the boost in professionalism from my educational background, this feeling gradually diminished.

Interviewer: In what specific ways has your education contributed to your career development?

Respondent: My master's degree helped establish a strong professional foundation in the early stages of my career, which gave me the confidence to participate actively in projects and team activities. I also found that this increased self-confidence and enhanced professional skills helped me earn more support and recognition at work.

Interviewer: Do you think employees with higher education are more likely to be promoted?

Respondent: To some extent, yes. I think higher education provides an advantage, especially at the beginning of one's career, as it demonstrates a stronger level of expertise and tends to attract the attention of leaders. However, as one moves up, work experience and leadership skills become more important.

Interviewer: So, you feel the impact of educational attainment on promotions varies across different job levels?

Respondent: Yes, I do. Education plays a more significant role at junior levels since it's an important way to showcase one's abilities. But as you rise in rank, experience and leadership skills take precedence, and the impact of educational background diminishes. Of course, I haven't reached the higher ranks myself yet, so this is just my personal view.

Interviewer: After joining the bank, did you consider further education?

Respondent: No, my highest level of education is my master's. I feel that in my current position, building up practical experience and skills is more important than further studies. Also, pursuing an even higher degree would be quite challenging.

Interviewer: How do you view the role of further education in career development?

Respondent: I think it's very beneficial for younger employees; it can broaden one's horizons and deepen their knowledge. That's why I decided to leave my job temporarily

to pursue a graduate degree. However, after entering the workforce, improving practical skills becomes more important.

Interviewer: What advantages does your educational background provide in your current position?

Respondent: My educational background gave me an edge early on, especially in terms of establishing professional credibility and gaining recognition from superiors. But now, what matters more is the industry knowledge and network I've built over the years; the value of my educational background is no longer as prominent.

Interviewer: Besides education, what other factors do you think influence promotion? Compared to educational background, which do you consider more important?

Respondent: Job performance and interpersonal relationships are critical. In my view, education is just a foundation. What matters more is one's performance in actual work and relationships with the team and leaders. I believe that with an increasing number of highly educated employees, the advantage of having a high level of education will gradually diminish, ultimately becoming just a baseline requirement.

Interviewer: Let's talk about other aspects of education. Are there colleagues in your department with similar educational backgrounds to their direct supervisors, such as the same major or university? Do you think this similarity helps with promotions?

Respondent: I think it does help, particularly in terms of alumni relationships, which can have a significant influence.

Interviewer: You mentioned that alumni relationships can have a significant impact. Do you have any specific experiences with this?

Respondent: Alumni connections can influence recruitment processes. Sometimes, our company recruits graduates from specific universities, and the decision on where to recruit may be biased, with more positions offered to graduates from certain institutions.

Interviewer: So, this is something you've personally experienced?

Respondent: Yes, I've encountered similar situations. Although it could be my perception, and there might not actually be a bias. I'm not entirely certain.

Interviewer: Moving on to gender issues, do you think there is any explicit or implicit gender discrimination in promotions within your company?

Respondent: This discrimination does exist, though it's not always strong or obvious. In terms of promotions, I think it's more evident. Women often face more challenges when it comes to advancement, especially into higher-level positions. As I mentioned earlier, higher education can indeed provide women with more opportunities to compete fairly.

Interviewer: In which areas is this discrimination less strong or less obvious?

Respondent: For example, when it comes to salary, it's generally equal. However, since promotions impact salary, and women face tougher competition for promotions, this bias is hidden. Also, with benefits distribution, women sometimes receive extra consideration, so there isn't discrimination in day-to-day matters unrelated to work. But in terms of actual work, the bias is very apparent — it's challenging for female employees to gain the same level of recognition as their male counterparts.

Interviewer: Thank you for sharing such detailed insights. Rest assured that your responses will remain confidential.

Interview 8

Interviewer: Thank you for taking the time to join us today. To start, how long have you been working at this bank?

Respondent: I've been at this bank for almost 15 years.

Interviewer: And what is your current role?

Respondent: I'm an assistant department manager. I mainly handle day-to-day business management and am also involved in project management and staff training.

Interviewer: Regarding your career development, how has your educational attainment played a role?

Respondent: I think it's very important. Especially now, with intense competition in the job market, having a higher level of education provides a significant advantage.

Interviewer: So how has it benefited you specifically?

Respondent: It's clear that my educational level has had a notable impact on my promotions. My promotion came soon after I upgraded my qualifications.

Interviewer: And your degree is?

Respondent: I completed a master's degree while working. My original qualification was a regular bachelor's degree.

Interviewer: Your master's is in which field, and what motivated you to choose that subject?

Respondent: My master's is in management. I chose it to gain deeper expertise in management and to further enhance my skills in this area. It also aligns well with my job role and responsibilities.

Interviewer: What specific advantages does this degree give you in your current role, and how much did it help with your promotion?

Respondent: Personally, the degree helps showcase my professionalism. After advancing my education, I acquired a broader range of professional knowledge. While

not all of it may be directly applicable, it does help instill greater confidence in my colleagues regarding my decisions.

Interviewer: It sounds like you have reservations about the practical applicability of what you studied?

Respondent: Not exactly, but applying specialised knowledge in a practical setting can be challenging. It really depends on one's ability to use that knowledge effectively, and in my case, it's sometimes hard to put it to use.

Interviewer: Do you think that's the case for everyone?

Respondent: It depends. For me, further education was definitely helpful. But I know colleagues who pursued higher education somewhat passively, perhaps because their peers were doing it. This kind of motivation can make their education upgrades feel more like a formality, so the effectiveness might be reduced.

Interviewer: Could you elaborate on these perspectives from your colleagues?

Respondent: Some colleagues pursued further education because they felt influenced by their peers, even if it wasn't part of their career plan. This passive motivation tends to be weaker, and they may be less proactive in their studies, which can lessen the benefits.

Interviewer: Would you say you were also somewhat influenced by others in deciding to pursue further education?

Respondent: Honestly, yes, to some degree.

Interviewer: Do you feel that such “following the trend” affects the effectiveness of upgrading one's education?

Respondent: It doesn't change the outcome—earning the degree remains the same. It's just that the motivation might not be as strong. Those who aren't fully invested might not gain as much, but they still earn a genuine degree.

Interviewer: So, would you say that employees with higher education are more likely to get promoted?

Respondent: Yes, but only if their education actually enhances their abilities. Some people pursue higher education purely to boost their promotion chances, but if the motivation isn't strong, it might not help them demonstrate added value in their work.

Interviewer: Do you think the impact of educational attainment on promotions varies at different job levels?

Respondent: Yes, there is a difference. I think education is more important in junior positions, as it's a key competitive advantage at that stage. But for higher positions, like department head or deputy division head, work experience takes precedence, and the value of education diminishes. Senior roles don't necessarily require advanced degrees because they focus more on management abilities, which lessens the need for specific educational qualifications.

Interviewer: Besides educational background, what other factors influence promotions? How do these compare to education?

Respondent: Besides education, I'd say job performance and interpersonal relationships are key. Education can give you an initial advantage, but continuous growth depends on your performance and teamwork abilities. Performance is crucial, and it may relate to both skills and educational background. Many highly educated colleagues are also strong performers, so there is a connection there. Ultimately, though, the ability demonstrated in practice is the most important factor.

Interviewer: Do you have colleagues with similar educational backgrounds to their immediate supervisors? For instance, those from the same university or with the same major? Do you think this helps them get promoted?

Respondent: Similar backgrounds are common, especially with colleagues who graduated from local universities, so there's some influence from alumni networks. It's hard to specify the impact, though.

Interviewer: Moving on, do you feel there is any explicit or implicit gender bias in promotions within your company?

Respondent: Yes, there is. I'm quite certain that biases against female colleagues are common. However, regardless of gender, educational attainment and skills are key indicators of a person's ability and value. In our company, I've seen many female colleagues achieve significant career success through continuous learning and growth, which is quite impressive.

Interviewer: Would you say that educational attainment helps ensure fairer opportunities for women in the workplace?

Respondent: Absolutely. Education is neutral, and valuing it makes hiring and promotion fairer for female employees. So from this perspective, education is a powerful factor in reducing bias. Still, it's not enough on its own. Workplaces should also be more supportive and inclusive for women, ensuring equal opportunities.

Interviewer: Could you elaborate on what you mean by equality and inclusivity?

Respondent: Simply put, it means giving female employees equal opportunities to showcase their abilities, receive fair treatment, and be given responsibilities on par with male colleagues. It's not just an ethical matter; it's also a business imperative. Diversity and inclusion help us build a stronger and more innovative team. Many of our female colleagues' talents are underutilised—they could be making a greater impact. Enabling them to contribute fully would definitely strengthen our department and company as a whole. I believe this will be achieved in the future.

Interviewer: Thank you for this detailed perspective. Rest assured that your responses will remain confidential.

Interview 9

Interviewer: Thank you for agreeing to this interview today. To start, how long have you been working at the bank?

Respondent: I've been with the bank for 17 years, starting from an entry-level role and working my way up to Deputy Branch Manager.

Interviewer: So your current role would be roughly equivalent to which level?

Respondent: I believe it would be at the deputy department level. I'm responsible for managing the overall operations of the department.

Interviewer: In your view, how has your educational attainment influenced your career development?

Respondent: I feel my educational background has provided a “foundation of trust” for my career development. In this industry, having a higher level of education gives leaders and colleagues more confidence in my professional abilities. Even when I first started, this foundation of trust allowed me to take on critical projects and showcase my skills. Education itself might not directly lead to promotion, but it certainly helps in establishing credibility in key assignments. I've found that particularly in interactions with other departments or external clients, having a higher education makes people more willing to listen to my opinions.

Interviewer: Do you think employees with higher educational attainment are more likely to be promoted?

Respondent: To some extent, yes, especially at the entry level. A higher level of education helps to establish trust and professionalism in the role, which is helpful when dealing with unfamiliar people. It also tends to attract more attention and opportunities from leadership. But at a certain stage, promotion is more about one's actual job performance and experience rather than educational level, as the difference between educational attainments and work experience begins to affect advancement.

Interviewer: So, would you say that the impact of education on promotion differs depending on the level?

Respondent: Yes, I believe educational advancement is especially impactful in the early to mid-career stages since it provides entry to more central tasks. But at higher levels, education has less of a direct effect, functioning more as “tacit support.” At senior levels, it's more like a “ticket” that allows you into discussions at top levels, but further advancement depends on whether you can drive business growth. My master's degree got me into decision-making circles, but continued promotion still depends on my actual results.

Interviewer: Did you consider pursuing further education after joining the bank, and if not, why?

Respondent: My final degree is a master's, which has been sufficient to support my career growth. For me, gaining practical experience has proven more valuable than pursuing a higher degree. While educational attainment is important, at a certain stage, experience becomes crucial. Besides, pursuing a doctorate would come with significant time costs.

Interviewer: And how do you view the role of further education while working in terms of career development?

Respondent: I think continuing education while working can be very beneficial, especially for those whose initial education might not have been particularly competitive — it can effectively compensate for educational limitations, and it's encouraged by the company.

Interviewer: Do you think your educational background offers any particular advantages in your current position?

Respondent: Currently, there's not much direct benefit. My role and responsibilities are not closely tied to my educational background.

Interviewer: Aside from educational background, what other factors do you think influence promotions, and how do they compare to the impact of education?

Respondent: Aside from educational background, I'd say communication skills are critical. In state-owned enterprises, strong teamwork and communication skills are essential for accomplishing tasks. Good communication helps one to navigate complex environments effectively. Learning ability is also important, and this is often linked to education; generally, employees with higher educational attainments tend to have stronger learning abilities, which is very valuable.

Interviewer: Do you know if any colleagues share a similar educational background with their direct supervisors? Do you think that similarity in background supports their promotions?

Respondent: I'm not entirely sure.

Interviewer: Thank you for sharing that. Lastly, do you believe there's any explicit or implicit gender bias in promotions within the company?

Respondent: I believe the system is fair, and the company emphasises fairness during recruitment and promotion. However, in practice, women indeed have to work harder to earn the same recognition as men. So, I think education in this context is an effective support for women. Higher educational attainment not only enhances our professional skills but also helps us build a broader network, which is crucial for career growth. Furthermore, additional learning broadens the horizons of our female staff, providing them with more resources to make well-informed career choices.

Interviewer: Thank you very much for this detailed insight. Please rest assured that your responses will be kept confidential.

Respondent: Thank you.

Interview 10

Interviewer: Thank you for joining our interview today. How long have you been working at this bank?

Respondent: I've been here for less than a year, so I'm still quite new.

Interviewer: And what is your current position?

Respondent: I'm in an entry-level role, mainly handling basic business operations and customer service.

Interviewer: Which university did you graduate from?

Respondent: I graduated from a 985 university in Beijing, where I studied Business Administration.

Interviewer: How do you feel your educational attainment has influenced your career development so far?

Respondent: At this stage, I think my degree has provided some advantages. Being a graduate from a prestigious university seems to have left a positive impression on my managers and colleagues. They seem to trust my ability to learn, which is helpful. While my tasks are fairly straightforward at the moment, I think my education has given me a solid starting point.

Interviewer: Do you think the impact of educational attainment on promotion varies across different job levels?

Respondent: I'm not entirely sure about that, as I'm just beginning my career.

Interviewer: Based on what you've observed in the company, do you think educational attainment influences promotions?

Respondent: I'm not certain, but I do notice that my department head has a master's degree from a well-known university, as do several other senior leaders. I think it might have some influence.

Interviewer: So, in your view, do you think higher-educated employees are more likely to be promoted?

Respondent: I'd say that a high level of education probably does help in some way. Employees with advanced degrees often have strong abilities; at least, that's the case with my manager, who has excellent professional skills.

Interviewer: Are you considering furthering your education once you've gained more work experience?

Respondent: I am considering it. I might pursue a master's degree in the future. I think it would expand my career options, but for now, I'm focused on gaining work experience and haven't made any specific plans.

Interviewer: What do you think about the impact of further education while working?

Respondent: I believe in-work further education can support career development. Some of my colleagues are pursuing master's degrees, and their understanding of our business and grasp of knowledge are quite strong. So I think continuing education can be quite beneficial.

Interviewer: Besides educational background, what other factors do you think influence promotions?

Respondent: I'd say adaptability is key, especially for newcomers. Quickly integrating into the work environment is essential. My educational background may make a good first impression, but ultimately, my performance and interpersonal skills will probably determine whether I can advance more quickly.

Interviewer: Do you think other factors, like years of service, affect promotions in the bank?

Respondent: Yes, definitely. Banks seem to place a lot of value on work tenure. Experienced colleagues, especially those who have rotated through various departments, are more familiar with business processes, which gives them more chances for promotion. I believe that educational background, tenure, and performance all play complementary roles in promotion.

Interviewer: Thank you very much for sharing these insights.

Interview 11

Interviewer: Thank you for taking the time to join our interview today. How long have you been working at the bank?

Respondent: I've been with the bank for about 15 years, and I currently oversee a department as a Section Chief.

Interviewer: My research topic focuses on the correlation between educational attainment and career progression. How would you assess the role your education has played in your career development?

Respondent: In my experience, educational attainment has had a significant impact on my career. I joined after completing my undergraduate degree at a 211 university and later pursued a master's and a doctorate while working. Throughout my studies, my professional skills and work experience grew in tandem. Writing my thesis, for example, helped me develop critical analysis and independent thinking skills, which, along with the experience I was building at work, substantially improved my professional abilities. It was a challenging process, balancing both work and academics, but it also made me more prepared to take on greater responsibilities.

Interviewer: What would you say is the greatest advantage your doctorate has brought to your work?

Respondent: The biggest advantage has been my ability to think logically and learn independently. The research training I received during my doctorate greatly enhanced my thinking skills; I learned to independently complete the entire research process, mostly through self-guided study. Having a framework to analyse and approach problems has given me more structure when handling work-related tasks. I view my degree as more than just a certificate—it has been a substantial support in tackling various responsibilities throughout my career.

Interviewer: Do you think the influence of educational attainment on promotion varies at different job levels?

Respondent: I don't believe it does. The benefits of higher education go beyond the degree itself; it builds capabilities that are valuable throughout one's career. Education enhances personal competencies, and this advantage applies to any job level.

Interviewer: In your opinion, are employees with higher educational qualifications more likely to be promoted?

Respondent: In professional roles, I would say they are. My experience aligns with this as well; many colleagues with advanced educational backgrounds seem to progress more quickly.

Interviewer: Beyond educational background, what other factors do you think influence promotions?

Respondent: There are many factors, but one of the main ones is networking. Networking often correlates with work tenure, educational background, and sometimes even the region a person is from, so it can be complex. Aside from networking, educational qualifications have an obvious impact, as they significantly enhance one's skill set.

Interviewer: Are there colleagues in your department who share the same or a similar educational background as their immediate supervisors? For example, same alma mater or major. Do you think this similarity aids in their career advancement?

Respondent: Alumni connections undeniably help with career progression. I've seen this many times, and I am confident that alumni relationships do influence some promotion outcomes in our department.

Interviewer: Thank you very much for sharing that insight. One last question: in your view, what specific advantages does educational attainment provide for women in the workplace? Do you think it helps to mitigate potential gender bias?

Respondent: I believe that for women, educational qualifications are a particularly fair means of competition. When it comes to showcasing professional expertise, having an advanced degree allows us to gain recognition from our superiors more easily.

Education provides solid support, giving women more room to demonstrate their abilities without simply being labelled as “female employees.” However, I also acknowledge that gender bias is a real issue in the workplace. Our organisation and leaders should pay more attention to advancing women's career development. This would not only help women overcome gender bias in the workplace but would also allow the company to tap into the potential and value of female employees.

Interviewer: Your perspective is incredibly enlightening—thank you for your time today. Rest assured, your privacy will be protected.

Respondent: Thank you for the assurance, and I hope my experiences can contribute to your research.

Interview 12

Interviewer: Thank you for taking the time for this interview today. How long have you been working at this bank?

Respondent: I've been with the bank for about five years now.

Interviewer: And what position do you currently hold?

Respondent: I'm an entry-level employee, mainly responsible for basic operational tasks.

Interviewer: How do you feel your educational attainment has influenced your career development?

Respondent: I think the influence is quite clear. Without my current educational background, I probably wouldn't have been able to join this company. My educational attainment served as an important entry point; having the qualifications allowed me to start my career here.

Interviewer: So, what is your educational background?

Respondent: I completed my undergraduate degree at a 211 university and then went on to complete a master's at the same institution.

Interviewer: And do you think your educational background has been specifically helpful in your role?

Respondent: Absolutely, it's been very helpful. My major was related to finance, which has made it easier for me to adapt to the work I do now.

Interviewer: Let's talk about the connection between educational attainment and promotion. Do you know of any colleagues who received promotions due to their educational backgrounds?

Respondent: I'm not entirely sure, as the colleagues in my department all have high educational backgrounds.

Interviewer: Do you believe that employees with higher educational attainment are more likely to be promoted?

Respondent: It seems so, although I don't have any specific examples. I would hope that's the case.

Interviewer: Have you considered furthering your education? If not, why?

Respondent: I haven't pursued further studies, nor do I plan to at the moment. The cost of upgrading my qualifications is high, and it may not be necessary for me.

Interviewer: Do you believe that the impact of educational attainment on promotion varies at different job levels?

Respondent: I don't think there's much difference. If educational qualifications are viewed as personal assets, they retain their value and don't diminish even as one takes on more senior roles.

Interviewer: How do you view the value of in-service further studies for career development?

Respondent: I think further studies can be beneficial, particularly for those with only a bachelor's degree. The process can develop skills like independent research, writing, and critical thinking. However, for someone who already has a master's degree, the added value might be limited.

Interviewer: Besides educational background, what other factors do you think influence promotions?

Respondent: I'd say job performance is critical, and it doesn't necessarily correlate with educational attainment. I've also seen colleagues with high educational backgrounds who haven't progressed quickly because their professional skills haven't developed as fast.

Interviewer: Do you know of colleagues in your department who share the same or similar educational background as their direct supervisors? Do you think this similarity has helped with their promotions?

Respondent: It doesn't seem to make a significant difference. For instance, my direct supervisor and I share the same field of study, but that hasn't necessarily advanced my promotion prospects.

Interviewer: Do you think there are explicit or implicit gender factors affecting promotion within the bank?

Respondent: Although the company policies don't explicitly favour one gender, it's clear that women face certain limitations when it comes to promotion.

Interviewer: Do you believe educational attainment can help women overcome these limitations?

Respondent: I think so. In my experience, a degree can be a great equaliser, demonstrating a woman's capability and value. It provides validation, supported by the credibility of entrance exams, which are fair and widely recognised. Further educational achievements can similarly showcase a woman's potential and worth.

Interviewer: Thank you for sharing your detailed insights today. Your responses will be strictly confidential, so you can rest assured.

Respondent: Thank you, I appreciate it.

Interview 13

Interviewer: Thank you for taking the time to speak with us today. To start, how long have you been working at the bank?

Respondent: I've been with the bank for about 16 years.

Interviewer: And what position do you currently hold?

Respondent: I'm the branch manager of one of our branches.

Interviewer: Based on the five levels I'm using, which level does your position correspond to?

Respondent: It's at the section chief level.

Interviewer: Do you feel that your educational attainment has played a role in your career development?

Respondent: To be honest, I don't think it has played a significant role. I entered the bank right after completing my undergraduate degree and started in an entry-level position. My promotions have primarily relied on accumulating experience and delivering strong performance rather than educational qualifications.

Interviewer: Have you noticed any colleagues who advanced in their careers due to their educational backgrounds?

Respondent: Some younger colleagues were indeed placed in better roles when they first joined because of their educational backgrounds. But in the long term, whether or not they get promoted depends on their actual performance and ability. Few people make it to management just based on their academic background; in the end, it's all about results.

Interviewer: Do you think employees with higher educational attainment are more likely to be promoted?

Respondent: Not necessarily. I've seen many highly educated colleagues who had a bit of an advantage initially, but at the management level, educational background

becomes less relevant. At that point, the focus is more on actual work ability than on qualifications.

Interviewer: Since joining the bank, have you considered furthering your education? If not, could you explain why?

Respondent: I haven't pursued additional qualifications because, in our industry, I believe experience and results are more important than academic credentials. I've accumulated sufficient experience, so further education doesn't appeal to me. In my observation, many colleagues who pursue higher qualifications don't necessarily improve their actual job performance, which makes it seem rather unimportant to me.

Interviewer: Do you feel that your educational background gives you any advantages in your current position?

Respondent: Frankly, not particularly. My job relies more on the business knowledge I've built up over the years and my ability to handle unexpected situations. The day-to-day management and keen business sense needed in banking come from experience, not classroom learning.

Interviewer: Aside from educational background, what other factors do you believe influence employee promotions?

Respondent: The most important factors are job performance and relationships with colleagues and supervisors. In our kind of roles, it's crucial to perform well at key moments. Educational attainment might be the starting point, but promotions ultimately depend on whether you can deliver results in practice and collaborate well with the team.

Interviewer: Do you know of any colleagues in your department who share the same or similar educational background with their direct supervisors? Do you believe this similarity in background helps with their promotions?

Respondent: Some colleagues do share similar educational backgrounds with their supervisors, like graduating from the same university. But I don't think this has a

significant impact on their promotions. Promotions still largely come down to individual performance. Similar academic backgrounds might make people feel more familiar with each other, but it's not a decisive factor for promotion.

Interviewer: Do you think there are explicit or implicit gender factors that influence promotions in the bank?

Respondent: I haven't paid much attention to this, nor have I personally felt its impact. However, I have indeed seen some excellent female colleagues whose performance matches or even surpasses that of male colleagues. Overall, I feel that promotion decisions in banking are based more on individual performance and ability rather than on gender.

Interviewer: Thank you for sharing your insights today. Rest assured, we will maintain strict confidentiality regarding the interview content, and no personal information will be disclosed.

Respondent: Thank you; I appreciate that.

Interview 14

Interviewer: Thank you for taking the time to speak with us today. To begin, how long have you been working at the bank?

Respondent: I've been with the bank for a little over two years.

Interviewer: And what is your current position?

Respondent: I'm in an entry-level role, primarily handling customer service.

Interviewer: In your view, what role has educational attainment played in your career development?

Respondent: To be honest, I don't think it's made much difference. My initial qualification was an associate's degree, and I later upgraded to a bachelor's. I don't think my education level has significantly impacted my work, nor do I feel that having a less advanced degree has hindered my ability to perform. My daily tasks are largely operational, and most of them don't require a high level of academic knowledge. So, in this role, educational attainment hasn't really been a direct asset.

Interviewer: Have you observed any colleagues who have gained promotions due to their educational backgrounds?

Respondent: I haven't really noticed.

Interviewer: Do you think employees with higher educational attainment are more likely to be promoted?

Respondent: Not necessarily. I think promotion depends more on individual performance and ability. Having a degree on its own doesn't directly open up promotion opportunities.

Interviewer: Since joining the bank, have you considered pursuing further education?

Respondent: No, I haven't considered it. For me, practical skills in the workplace are more important than educational qualifications, and my current job doesn't really require higher education.

Interviewer: What are your thoughts on further studies during employment and its potential impact on career development? Do you think it might help you advance in the future?

Respondent: For some specialised or technical roles, further education might be beneficial. But for a basic role like mine, further studies wouldn't have much immediate impact—at least, not on the work I'm doing right now.

Interviewer: Apart from educational background, what other factors do you think influence employee promotions?

Respondent: I believe work performance and communication skills with both colleagues and clients are the most important factors. Education is just an initial entry requirement; whether you get promoted depends on your actual work performance, particularly how well you meet customer needs and handle their issues.

Interviewer: Are you aware of any colleagues in your department who share the same or similar educational background with their direct supervisor? Do you think this similarity aids in their promotions?

Respondent: I haven't really paid attention to this kind of situation.

Interviewer: Do you think there are any explicit or implicit gender factors that influence promotions within the bank?

Respondent: I haven't paid particular attention to this issue. But, in our role, I don't think gender has much of an impact on promotions. It's more about work performance and customer service skills.

Interviewer: Thank you very much for sharing your thoughts today. Rest assured, your responses will be kept strictly confidential and no personal information will be disclosed.

Respondent: Thank you; I appreciate that.

Interview 15

Interviewer: Thank you for agreeing to this interview today. Firstly, how long have you been working at this bank?

Respondent: I've been working at the bank for about 25 years now, and I've experienced different departments and role changes over the years.

Interviewer: And what is your current position?

Respondent: I am the branch manager, responsible for the operations and management of a branch.

Interviewer: So your current role would roughly correspond to what level?

Respondent: It would be equivalent to a mid-level management position.

Interviewer: In your opinion, what role has your educational attainment played in your career development?

Respondent: I think it's necessary to look at this from two different phases. When I first joined, my educational attainment was a standout feature, and I considered it an important asset. My undergraduate degree from a prestigious university made me more noticeable early on in my career. Later, I pursued a master's degree while working, which broadened my knowledge and improved my professional skills. However, as I gained work experience, the influence of my educational background became less prominent. The workplace is like a school, and the longer I've been in this "school," the more the value of my former education fades. Overall, though, educational attainment has had a positive impact on my career development.

Interviewer: Let's talk about your colleagues. Are there instances where colleagues have achieved promotions specifically due to their educational backgrounds?

Respondent: There are a few cases. I think this is particularly true for younger employees; those with prestigious university backgrounds or higher educational attainment tend to receive more opportunities to demonstrate their abilities, which likely

aids their promotion prospects. However, at more senior levels, the influence of educational attainment becomes less evident.

Interviewer: So, would you say that the impact of educational advancement on promotions varies by position level?

Respondent: Definitely. The value of educational attainment diminishes over time as one progresses in their career.

Interviewer: Do you think employees with higher educational attainment are more likely to be promoted?

Respondent: Usually, that's the case, but it's not solely due to educational attainment. You might have seen this scenario: the company encourages managers to improve their educational credentials, so some employees who are on the verge of promotion will pursue further studies before the promotion actually happens. It's a case of "getting on the train before buying a ticket." In other words, the promotion isn't caused by the educational attainment; rather, the attainment happens alongside the promotion.

Interviewer: Is this phenomenon widespread?

Respondent: It was quite common for a while, but it's less so now.

Interviewer: When you decided to pursue a master's degree after joining the bank, how did that choice impact your career?

Respondent: My decision to pursue a master's degree was driven by a desire to strengthen my theoretical knowledge and management skills. During that period of study, I gained a more systematic and structured way of thinking, which has helped me organise my work more effectively.

Interviewer: What are your thoughts on the impact of further studies during employment on career development?

Respondent: I think pursuing further studies while working is a solid choice, particularly for employees who are aiming for long-term career growth. However, it

depends on the individual. If someone already has substantial practical experience, going back to study may not yield significant results. The key is to align further studies with personal career goals and development needs.

Interviewer: In your current position, what specific advantages do you think your educational attainment has provided?

Respondent: The improvement in my personal abilities that came from furthering my education is comprehensive, so it's hard to specify any single advantage.

Interviewer: Aside from educational background, what other factors do you think affect an employee's promotion prospects?

Respondent: Promotions are primarily based on performance and capability, both of which require individual effort. So, I believe that personal qualities are crucial. In my experience, those who work hard are more likely to be promoted. An employee's attitude towards work often determines the pace of their career progression.

Interviewer: Do you know of any colleagues in your department who share a similar educational background with their direct supervisors? Do you think this shared background aids their promotion?

Respondent: I can't say with certainty if this similarity affects their promotion prospects.

Interviewer: In your opinion, are there any explicit or implicit gender factors affecting promotions within the bank?

Respondent: Institutionally, I think the company is fair. However, in practice, women do face certain challenges in their career progression. Responsibilities and pressures from home and family life can hinder career advancement for women. That said, I believe that with societal progress, these challenges will gradually diminish.

Interviewer: Thank you very much for sharing your detailed insights today. Rest assured, your interview responses will be kept strictly confidential, and your personal information will not be disclosed.

Respondent: That's fine. Thank you.

Summary of Interview Respondent Demographics and Perceptions on Educational Background

ID	Gender	Initial Education	Final Education	Upgrade	Position	View on the Role of Educational Background
1	Female	Prestigious Bachelor	Bachelor	No	General Staff	Believes it has some effect
2	Male	Ordinary Bachelor	Master's	Yes	General Staff	Believes it is very important
3	Male	Below Bachelor	Bachelor	No	General Staff	Believes it has no effect
4	Female	Prestigious Bachelor	Bachelor	No	General Staff	Believes it has some effect
5	Male	Ordinary Bachelor	Bachelor	No	General Staff	Believes it has some effect
6	Female	Prestigious Bachelor	Bachelor	No	General Staff	Believes it is very important
7	Male	Prestigious Bachelor	Master's	No	General Staff	Believes it is very important
8	Female	Below Bachelor	Master's	No	General Staff	Believes it is very important
9	Female	Prestigious Bachelor	Master's	No	General Staff	Believes it is very important
10	Female	Below Bachelor	Bachelor	No	General Staff	Believes it has some effect
11	Female	Prestigious Bachelor	Master's	No	General Staff	Believes it is very important

12	Female	Ordinary Bachelor	Master's	No	General Staff	Believes it has some effect
13	Male	Below Bachelor	Bachelor	No	Deputy Section Chief	Believes it has no effect
14	Female	Prestigious Bachelor	Master's	No	Deputy Section Chief	Believes it is very important
15	Male	Below Bachelor	Bachelor	No	Deputy Section Chief	Believes it has some effect
16	Male	Below Bachelor	Bachelor	No	Deputy Section Chief	Believes it has no effect
17	Male	Below Bachelor	Bachelor	No	Deputy Section Chief	Believes it has some effect
18	Male	Below Bachelor	Bachelor	No	Deputy Section Chief	Believes it has no effect
19	Female	Prestigious Bachelor	Master's	Yes	Deputy Section Chief	Believes it is very important
20	Male	Ordinary Bachelor	Master's	No	Deputy Section Chief	Believes it has some effect
21	Male	Ordinary Bachelor	Master's	Yes	Deputy	Believes it is very

					Section Chief	important
22	Female	Prestigious Bachelor	Master's	No	Deputy Section Chief	Believes it has some effect
23	Male	Ordinary Bachelor	Master's	No	Deputy Section Chief	Believes it is very important
24	Female	Prestigious Bachelor	Master's	No	Deputy Section Chief	Believes it is very important
25	Female	Prestigious Bachelor	Bachelor	No	Section Chief	Believes it has some effect
26	Male	Below Bachelor	Bachelor	No	Section Chief	Believes it has no effect
27	Male	Prestigious Bachelor	Doctorate	No	Section Chief	Believes it is very important
28	Female	Prestigious Bachelor	Doctorate	Yes	Section Chief	Believes it is very important
29	Female	Ordinary Bachelor	Doctorate	Yes	Section Chief	Believes it has some effect
30	Male	Ordinary Bachelor	Doctorate	Yes	Section Chief	Believes it has some effect
31	Male	Ordinary Bachelor	Master's	Yes	Section Chief	Believes it is very important
32	Male	Ordinary Bachelor	Master's	No	Section Chief	Believes it has some effect

33	Female	Prestigious Bachelor	Master's	No	Section Chief	Believes it is very important
34	Female	Prestigious Bachelor	Master's	No	Section Chief	Believes it has some effect
35	Male	Below Bachelor	Master's	No	Section Chief	Believes it is very important
36	Male	Prestigious Bachelor	Master's	Yes	Section Chief	Believes it is very important
37	Male	Below Bachelor	Bachelor	Yes	Deputy Division Chief	Believes it is very important
38	Male	Prestigious Bachelor	Bachelor	No	Deputy Division Chief	Believes it is very important
39	Male	Ordinary Bachelor	Doctorate	Yes	Deputy Division Chief	Believes it is very important
40	Female	Ordinary Bachelor	Doctorate	Yes	Deputy Division Chief	Believes it is very important
41	Female	Ordinary Bachelor	Doctorate	Yes	Deputy Division Chief	Believes it is very important
42	Male	Ordinary Bachelor	Bachelor	No	Deputy Division Chief	Believes it has no effect

43	Male	Prestigious Bachelor	Master's	No	Deputy Division Chief	Believes it is very important
44	Male	Ordinary Bachelor	Master's	No	Deputy Division Chief	Believes it is very important
45	Male	Prestigious Bachelor	Master's	Yes	Deputy Division Chief	Believes it is very important
46	Male	Prestigious Bachelor	Master's	No	Deputy Division Chief	Believes it has some effect
47	Female	Ordinary Bachelor	Master's	No	Deputy Division Chief	Believes it has some effect
48	Female	Prestigious Bachelor	Master's	No	Deputy Division Chief	Believes it is very important
49	Male	Ordinary Bachelor	Bachelor	No	Division Chief	Believes it has no effect
50	Male	Prestigious Bachelor	Bachelor	No	Division Chief	Believes it has some effect
51	Male	Prestigious Bachelor	Doctorate	Yes	Division Chief	Believes it is very important
52	Female	Ordinary Bachelor	Bachelor	No	Division Chief	Believes it is very important
53	Male	Below Bachelor	Bachelor	Yes	Division	Believes it has some effect

					Chief	
54	Male	Ordinary Bachelor	Doctorate	Yes	Division Chief	Believes it is very important
55	Female	Ordinary Bachelor	Doctorate	Yes	Division Chief	Believes it has some effect
56	Male	Prestigious Bachelor	Doctorate	Yes	Division Chief	Believes it is very important
57	Male	Prestigious Bachelor	Master's	No	Division Chief	Believes it is very important
58	Male	Prestigious Bachelor	Master's	Yes	Division Chief	Believes it is very important
59	Male	Ordinary Bachelor	Master's	Yes	Division Chief	Believes it is very important
60	Male	Prestigious Bachelor	Master's	Yes	Division Chief	Believes it has some effect