



The Optimization of Talent Selection System of MCC Jiangxi Copper Aynak Mining CO., LTD.

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Abstract

The mining project of MCC Jiangxi Copper Aynak Mining Co., Ltd. in Afghanistan is of strategic and economic importance. However, the region's long-term conflict has disrupted the local talent development system, creating a severe shortage of skilled mining professionals. Additionally, local universities' outdated curricula and lack of practical training have hindered recruitment efforts. The company's current talent selection system primarily focuses on professional skills and work experience, neglecting crucial factors such as cross-cultural communication, adaptability, and alignment with corporate strategy. This limits the company's ability to navigate Afghanistan's unique operational challenges, affecting both project progress and long-term growth. This study examines MCC Jiangxi Copper Aynak Mining Co., Ltd.'s talent selection system, utilizing theories in human resource management, talent assessment, and competency models. The research analyzes the company's development in Afghanistan, talent distribution, and the limitations of the existing selection mechanism. It aims to clarify selection objectives, expand recruitment channels, and improve selection processes, ultimately creating a tailored talent selection system for the company's needs in Afghanistan. The study proposes a multi-dimensional talent selection system that addresses various positions within the Afghanistan mining project. This system includes clear competency standards for roles in exploration, mining, and other key areas, while optimizing recruitment channels and decision-making processes. It is designed to meet the specific demands of transnational mining operations and local conditions in Afghanistan, enhancing the company's ability to select highly skilled, adaptable talent. This will improve operational efficiency, resource development, and market competitiveness.

Subject Areas

Management

Keywords

Talent Selection System, Talent Assessment, Human Resource

1. Introduction

The mining industry plays a central role in global economic Development by providing essential resources that support various sectors, such as manufacturing, energy, and infrastructure [1]. As the world becomes more interconnected and competition intensifies, mining companies face increasingly complex challenges, particularly when operating in emerging markets and politically unstable regions. Afghanistan, a country with significant untapped mineral wealth, offers both tremendous opportunities and unique challenges for multinational companies involved in large-scale mining operations. MCC Jiangxi Copper Aynak Mining Co., Ltd. is tasked with developing and operating the Aynak copper mine in Afghanistan, one of the largest untapped copper reserves in the world [2]. This project holds not only strategic importance for MCC Jiangxi Copper but also considerable economic potential for Afghanistan. However, the project's success is heavily dependent on the availability of skilled labor and effective human resource management. Afghanistan's mining industry, like many other sectors, suffers from a shortage of qualified professionals [3]. Decades of conflict, a disrupted education system, and the lack of vocational training have left a gap in the talent pool. Additionally, the local universities' outdated curricula fail to provide the necessary skills and hands-on experience for modern mining operations. MCC Jiangxi Copper faces considerable difficulty in recruiting high-quality local talent to meet the technical and managerial demands of the Aynak mining project [4]. The company's reliance on expatriate workers, though helpful in the short term, is not a sustainable solution and is costly for the project's long-term operation. Hence, improving the talent selection system becomes a strategic priority for the company, enabling it to better integrate local workers, meet regulatory requirements, and maintain operational efficiency [5].

The problem at hand lies in the inefficiencies and limitations of the current talent selection system at MCC Jiangxi Copper Aynak Mining Co., Ltd. The company's existing recruitment approach is primarily focused on professional skills and work experience. While these criteria are crucial, they fail to account for key elements necessary for success in the Afghan mining environment [3]. Critical aspects such as cross-cultural communication skills, adaptability to Afghanistan's complex operating conditions, and an understanding of the company's broader strategic objectives are often overlooked. This narrow focus in the recruitment process has led to a mismatch between the candidates' qualifications and the specific needs of the mining operation. The current selection system does not adequately address the dynamic, multi-cultural environment of Afghanistan, where employees are expected to navigate complex cultural norms, political instability,

and logistical challenges. As a result, project efficiency is hampered, and the company struggles to achieve long-term operational success and compliance with Afghan labor regulations. Moreover, the inadequate Development of local talent further exacerbates the situation, as the company remains dependent on foreign workers, thereby hindering its ability to fulfill Afghan labor law requirements for local hiring.

Talent selection and human resource management are widely recognized as vital to the success of large-scale projects, especially in complex, high-risk environments such as the mining industry [6]. Numerous studies have explored recruitment strategies in the mining sector, with a particular focus on high-skill labor shortages and on integrating local talent, mining companies often face challenges in recruiting skilled workers due to the industry's remote locations and hazardous conditions. In such contexts, traditional recruitment methods, which prioritize only technical skills and work experience, are inadequate. One key solution proposed by various scholars is the incorporation of competency-based frameworks in recruitment [7]. For instance, emphasize the importance of evaluating candidates not just on technical expertise but also on their ability to adapt to cultural and operational challenges. These frameworks suggest that talent selection in the mining industry should also account for the individual's cultural adaptability, problem-solving abilities, and alignment with the company's values and strategic goals. Furthermore, several studies have advocated expanding recruitment channels to incorporate both domestic and international sources to address local talent shortages [8]. Multinational companies in resource-rich countries like Afghanistan often have to balance international expertise with local workforce integration, and this balance can be achieved by refining recruitment processes to ensure that local candidates are sufficiently trained and developed. A more recent trend in the industry is the use of data-driven approaches to recruitment, such as psychometric testing and structured interviews, which provide a more holistic view of candidates' abilities [9]. These approaches help assess soft skills such as teamwork, adaptability, and leadership, which are crucial for operating in high-risk and diverse environments. For example, advantages of these methods in reducing bias and improving recruitment outcomes. They argue that such approaches provide a better prediction of job performance, especially when candidates must navigate complex social and organizational structures. However, despite these advancements, few studies have focused on optimizing recruitment for multinational mining projects operating in regions with unstable socio-political environments, such as Afghanistan. There is a gap in the literature on integrating professional and soft skills in talent selection for these unique environments [10]. While much has been written about improving recruitment systems in stable, developed markets, little has been done to address the specific needs of the Afghan mining sector, where local conditions present additional challenges.

The main objective of this research is to design a more effective and comprehensive talent selection system for MCC Jiangxi Copper Aynak Mining Co., Ltd.,

tailored to the unique challenges of the Afghanistan mining project. This study aims to optimize the recruitment process by incorporating a broader range of selection criteria, moving beyond technical qualifications to include cross-cultural communication skills, adaptability to complex environments, and alignment with corporate strategy.

2. Theoretical Foundation of Talent Selection

The selection of talent is a fundamental process that requires a systematic approach, grounded in solid theoretical foundations. Theories in human resource management, talent assessment, and competency modeling form the backbone of any effective talent selection system. This chapter aims to provide an in-depth exploration of the theoretical frameworks that support the talent selection process, particularly focusing on human resource management theories, talent assessment theories, and competency model theory, as applied to the mining industry [11].

2.1. Human Resource Management Theory

Human Resource Management (HRM) theory provides the overarching framework for understanding how organizations manage and develop their workforce. The theoretical foundations of HRM emphasize the importance of aligning human capital strategies with organizational goals, ensuring that the organization attracts, develops, and retains the right talent to achieve its objectives [12].

2.1.1. Human Resource Planning Theory

Human Resource Planning (HRP) theory is concerned with ensuring that an organization has the right number of employees with the right skills, at the right time, and at the right cost. HRP theory focuses on forecasting future human resource needs and developing strategies to meet them. This is particularly relevant in the context of large-scale projects like the Aynak mining operation, where the availability of skilled labor must be carefully planned to ensure timely, aligned talent acquisition aligned with the project's operational requirements. HRP involves assessing current workforce capabilities, forecasting future skill needs, and designing recruitment and training strategies to meet anticipated skill demand. The theory also emphasizes the importance of aligning HR practices with broader organizational strategies, ensuring that talent acquisition, Development, and retention are integrated with the company's strategic goals [13]. In the context of the Aynak copper project, effective human resource planning will help address the local talent shortage and ensure that both local and expatriate workers are integrated efficiently into the project.

2.1.2. Human Resource Development Theory

Human Resource Development (HRD) theory focuses on the continuous Development of employees' knowledge, skills, and abilities to meet both current and future organizational needs. HRD encompasses a wide range of activities, includ-

ing training, career Development, and organizational learning, all of which are essential for ensuring a sustainable and effective workforce. HRD theory is particularly relevant to the selection process, as it highlights the importance of developing local talent in countries such as Afghanistan, where access to specialized education and training is limited. [14], HRD is critical for fostering a culture of learning and adaptability, especially in environments with rapidly changing technological demands. For MCC Jiangxi Copper, implementing HRD strategies would be essential to bridge the skills gap in the local labor force and prepare employees for more advanced roles in the mining operation.

2.1.3. Human Resource Allocation Theory

Human Resource Allocation (HRA) theory addresses the strategic deployment of human resources across organizational functions. It emphasizes the efficient distribution of talent across departments, roles, and projects, ensuring that the right individuals are assigned to tasks based on their skills and the company's needs. In the context of talent selection, HRA theory informs the recruitment process by helping organizations prioritize and allocate resources to the most critical positions. For MCC Jiangxi Copper, the application of HRA theory would help allocate the right talent to key areas of the Aynak project, such as exploration, mining, and resource processing, optimizing productivity and performance [15] [16]. This approach is especially important in large projects where resource management is crucial for meeting deadlines and achieving operational efficiency.

2.2. Talent Assessment Theory

Talent assessment theory refers to the methodologies and frameworks used to evaluate and measure candidates' capabilities, potential, and fit during the selection process. It incorporates various methods such as psychological testing, interviews, and evaluation centers, all designed to ensure that the chosen candidates meet the organization's needs.

2.2.1. Psychological Testing Theory

Psychological testing theory relies on standardized tools and assessments to measure cognitive abilities, personality traits, and other psychological factors that influence job performance. These tests provide valuable insights into candidates' problem-solving abilities, emotional intelligence, and work styles, which are often not captured in traditional interviews or resumes [17]. In the talent selection process, psychological testing is used to assess candidates' compatibility with the organizational culture and their ability to perform under pressure, particularly in high-risk environments such as mining. For example, personality assessments can help identify individuals who thrive in challenging, dynamic work conditions, while cognitive ability tests can predict problem-solving skills crucial in mining operations. Psychological tests can significantly improve the accuracy of the selection process, reduce biases and ensure a better match between candidates' traits and job requirements [18].

2.2.2. Interview Theory

Interview theory examines the methods and strategies for conducting interviews, one of the most widely used tools for talent assessment. Traditional interview theory emphasizes the importance of structured interviews, in which interview questions are standardized to assess all candidates equally, thereby reducing bias and ensuring fairness [19]. Structured interviews have been shown to be more reliable and valid than unstructured interviews because they allow for a more objective evaluation of candidates' qualifications and abilities. For mining companies like MCC Jiangxi Copper, structured interviews are essential for evaluating technical skills, work experience, and personal attributes that are difficult to assess through other methods. Additionally, competency-based interviews, which focus on real-world examples of past behavior, can provide deeper insights into a candidate's ability to perform in complex environments [20].

2.2.3. Evaluation Center Theory

Evaluation center theory is based on the use of simulations and exercises designed to assess candidates' abilities in real-world scenarios. Evaluation centers use a combination of group discussions, role-playing exercises, and situational judgment tests to assess how candidates perform in a controlled yet dynamic environment. These assessments are particularly useful for evaluating candidates' leadership skills, problem-solving abilities, and interpersonal communication in high-stakes situations [21]. Evaluation centers are valuable in the mining industry because they replicate the complex, high-pressure situations that workers will face on the job. For example, group exercises can assess teamwork and communication skills, while individual simulations can test technical expertise and decision-making under stress. By using evaluation centers, MCC Jiangxi Copper can gain a more comprehensive understanding of each candidate's suitability for the Aynak mining project's unique demands.

2.3. Competency Model Theory

Competency model theory is a framework for identifying the key skills, behaviors, and attributes required for success in specific roles. Competency models are built on the premise that successful job performance results from a combination of technical knowledge, personal attributes, and behaviors aligned with the organization's goals and culture.

2.3.1. Competency Model Construction Method

The construction of competency models involves identifying the core competencies that are required for success in various roles within the organization. These competencies are typically categorized into technical skills, behavioral competencies, and personal attributes. The process of developing a competency model starts with analyzing job requirements, consulting with subject matter experts, and defining the key behaviors that lead to high performance. For MCC Jiangxi Copper, building a competency model for the Aynak mining project will involve identify-

ing the competencies required for roles ranging from exploration to resource management. These competencies will guide recruitment, performance management, and career Development within the company. Competency models ensure that recruitment efforts focus on the right skills and attributes, enhancing the quality of hires and improving organizational performance [22].

2.3.2. Application of Competency Model in the Mining Industry

In the mining industry, competency models are particularly useful for ensuring employees have the skills to operate in demanding environments. These models help mining companies like MCC Jiangxi Copper identify the specific skills required for positions such as geologists, engineers, and safety managers, and ensure that the recruitment process aligns with operational requirements. The application of competency models in mining can also help identify skill gaps among employees, leading to targeted training and Development programs that enhance workforce capabilities [10]. Competency models also play a critical role in cross-cultural adaptation, an essential factor in multinational mining operations. By integrating competencies in cross-cultural communication and adaptability into the model, MCC Jiangxi Copper can better select candidates who can thrive in Afghanistan's unique socio-cultural and operational environment.

3. Analysis of MCC Jiangxi Copper Aynak Mining Co., Ltd.'s Current Situation

3.1. Company Development Overview

MCC Jiangxi Copper Aynak Mining Co., Ltd. is a joint venture between China Metallurgical Group and Jiangxi Copper, focused on developing Afghanistan's Aynak copper project. Guided by compliant Development, green operations, and local win-win outcomes, it serves as a key platform for Chinese investment in Afghan mining, driving local employment and economic growth. The Development of MCC Jiangxi Copper Aynak Mining Co., Ltd. leverages Chinese enterprises' technological and financial strengths alongside Afghanistan's mineral resources. Its history comprises three stages: project exploration, company formation, and operational adjustment. In 2008, MCC and Jiangxi Copper identified the Aynak copper mine in Logar Province as one of the world's largest copper mines with high grade and significant value. Despite Afghanistan's unstable post-war situation, Chinese firms became key contenders. In 2010, the consortium secured Development rights and formally established the company with billions in registered capital. A professional team was deployed to conduct surveys, feasibility studies, and preliminary design, while engaging Afghan ministries to ensure regulatory compliance. 2012: Substantial construction began on open-pit mines, ore transport, processing plants, and supporting infrastructure. Using a model combining Chinese technical staff with local employees, the project advanced despite material shortages, complex conditions, and security risks. Post-2015, Amid political changes, copper price fluctuations, and stricter environmental standards,

the company shifted from rapid construction to a steady, risk-controlled approach. Efforts focused on security systems, local talent Development via vocational partnerships, and community relations through investments in roads, water, and healthcare. Currently, exploration in the core area is complete, major processing plant works are nearly finished, and auxiliary facilities are operational. The project has entered a trial production and capacity ramp-up phase, establishing itself as a model for Chinese enterprises achieving localized operations in post-conflict regions.

3.2. Company Organizational Structure

MCC Jiangxi Copper Aynak Mining Co., Ltd. operates under a two-tier “headquarters project site” management framework. The Beijing headquarters oversees strategy, finance, major decisions, and external coordination, while the on-site command center in Afghanistan manages production operations, daily execution, and local management. This structure combines strategic control with on-site execution. The organization follows the principle of clear functions, division of labor, and efficient collaboration, comprising 12 core departments with defined responsibilities and reporting lines shown in **Table 1**.

Table 1. Organizational structure and department responsibilities of MCC Jiangxi Copper Aynak Mining Co., Ltd.

| Level | Department name | Core responsibilities | Reports to | Key collaborative departments |
|---------------------|--------------------------------------|--|-----------------------------------|---|
| Headquarters | Strategic planning department | Develop medium- and long-term strategies, conduct industry and policy research, evaluate major investment feasibility | General manager | Finance department, project site command center |
| | Finance department | Fund raising and management, financial accounting and reporting, cost control and budgeting, tax compliance | Deputy general manager (Finance) | Strategic Planning Department, all site departments |
| | Human resources department | Formulate HR policies, manage Chinese employees, guide local talent recruitment and development at project sites | Deputy general manager (HR) | Project site HR department, training department |
| | Legal and compliance department | Review contracts, ensure compliance with Afghan and Chinese regulations, handle legal disputes and risks | General manager | Business department, project site legal group |
| | Business department | Copper concentrate sales and client development, equipment and consumables procurement, supply chain optimization | Deputy general manager (Business) | Finance department, project site production and technology department |
| Project site | Production and technology department | Develop mining plans and equipment scheduling, adjust beneficiation processes and improve efficiency, solve technical problems | Project site chief commander | Safety and environmental department, equipment management department |
| | Safety and environmental department | Develop safety procedures and conduct training and inspections, handle safety hazards; operate environmental protection facilities, monitor environment and ecological restoration | Project site chief commander | Production and technology department, community relations department |

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|---------------------------------|---|--|---|
| Equipment management department | Procure, install, maintain, and repair mining and beneficiation equipment, manage spare parts | Project site production and technology department head | Business department, production and technology department |
| Human resources department | Execute local recruitment and onboarding training, manage salary and performance evaluation, coordinate local labor relations | Headquarters HR department | Training department, all production departments |
| Training department | Conduct employee skills and cross-cultural training, assess training effectiveness | Project site HR department Head | Production and technology department, safety and environmental department |
| Community relations department | Communicate with local governments, carry out community welfare, handle community complaints | Project site chief commander | Legal and compliance department, safety and environmental department |
| Logistics support department | Manage employee living camps, warehouse materials and distribution, dispatch and maintain transportation vehicles | Project site chief commander | |

Key Features:

Localized Management: Dedicated HR and community relations functions support adaptation to Afghanistan's social context.

Safety & Environmental Priority: An independent safety and environmental department reports directly to the project site commander.

Headquarters-Site Coordination: Clear reporting lines ensure strategic alignment while allowing site-level flexibility.

3.3. Talent Status Data Collection and Analysis

Talent is a core resource for advancing the Aynak project. The company follows a "localization-first, international-supplement" talent strategy. Due to a scarcity of local complex talent and high mobility barriers, current challenges include gaps in emerging talent, differentiated turnover risks, and unbalanced development. Analysis focuses on three dimensions: quantity and structure, distribution and mobility, and training and development.

Talent Quantity and Structure

Total workforce meets production needs, but structural issues include saturation of traditional technical roles, a shortage of digital talent, and upgrading local capabilities shown in **Table 2**.

Table 2. Talent quantity and structure statistics of MCC Jiangxi Copper Aynak Mining Co., Ltd.

| Statistical dimension | Category | Number (Persons) | Percentage of total workforce | Core features |
|-----------------------|---------------|------------------|-------------------------------|---|
| Total size | All employees | 1542 | 100% | Increased by 26.6% from 2023, with new positions in digital and local technical roles |

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|-------------------------------|--|------|-------|--|
| Nationality structure | Chinese employees | 438 | 28.4% | 65% of technical backbone, 8% digital talent (e.g., data analysts) |
| | Afghan local employees | 1104 | 71.6% | 68% in production operations, technical roles increased to 15% |
| Professional structure | Mining technical (geology, mining, etc.) | 401 | 26.0% | 68% Chinese, 32% local, significant success in technology transfer |
| | Digital (data, smart equipment) | 77 | 5.0% | 92% Chinese, 8% local, shortage of composite talent |
| | Management | 185 | 12.0% | 52% Chinese, 48% local management positions increased |
| | Production operations | 784 | 50.9% | 94% local, 40% increase in complex equipment operation capabilities from 2023 |
| | Logistics and support | 95 | 6.1% | All local employees, 22% decrease in turnover from 2023 |
| Educational structure | Bachelor's degree and above | 386 | 25.0% | 82% Chinese, 18% local, 11% increase from 2023 |
| | Vocational/college degree | 539 | 35.0% | 38% Chinese, 62% local, mostly school-enterprise cooperation trainees |
| | High school and below | 617 | 40.0% | All local employees, 12.9% decrease from 2023 |
| Age structure | 25-35 years | 987 | 64.0% | 90% local, core group for skills upgrade |
| | 36-45 years | 422 | 27.4% | 65% Chinese, handling both technical and managerial responsibilities |
| | 46 years and above | 133 | 8.6% | 95% senior Chinese experts, responsible for technical breakthroughs and talent development |

Key Characteristics:

Localization Quality Improved: Local employees exceed 70%; technical roles rose from 7% to 15%; local management participation increased, driven by “Chinese mentoring + school cooperation.”

Digital Talent Gap: Digital talent comprises only 5%, with local representation below 10%, hindering intelligent mining upgrades.

Education Levels Rising: High school and below decreased by 12.9 percentage points; local bachelor's degree holders doubled, though still below international mining benchmarks.

3.4. Talent Distribution and Mobility

Talent distribution reflects whether “talent is accurately matched to job requirements,” while talent mobility indicates “the ability to retain and stabilize talent.” The talent distribution at MCC Jiangxi Copper Aynak Mining Co., Ltd. is deeply integrated with the intelligent production layout of mine. Talent mobility trends show characteristics such as “stability in core technical positions, reduced mobility in basic positions, and fierce competition in digital positions,” which require

resource allocation and mechanism optimization to strengthen retention. Specific data is shown on the **Table 3**:

Table 3. Talent distribution and mobility statistics of MCC Jiangxi Copper Aynak Mining Co., Ltd.

| Statistical dimension | category | Specific data | Core analysis |
|------------------------------------|---------------------------------------|---|--|
| Job distribution (by Role) | Mining operations | 494 people (32.0%): 89% local, 11% Chinese, 32 new intelligent mining equipment operators | Adequate staffing, with Chinese technical guidance pressure reduced by 30% compared to 2023 |
| | Beneficiation operations | 386 people (25.0%): 72% local, 28% Chinese, local employee involvement in core processes increased to 45% | Significant success in technology transfer, but the intelligent beneficiation system still relies on Chinese staff for operation |
| | Digital operations maintenance | 77 people (5.0%): 8% local, 92% Chinese, concentrated in the mine's intelligent control center | Talent is highly scarce, requiring targeted recruitment and local talent development |
| | Management and logistics | 585 people (38.0%): 48% local in management, logistics turnover rate decreased to 22% | Successful progress in localization of management, increased stability in logistics roles |
| Regional distribution | Afghanistan project site | 1429 people (92.7%): concentrated in the mine and intelligent camp | After upgrading living facilities, employee satisfaction increased by 40% compared to 2023 |
| | China headquarters/expatriate support | 113 people (7.3%): 28 new digital technology expatriates | Improved response speed at headquarters, short-term expatriate technical issues alleviated |
| Mobility | Total attrition rate | 12.5% (193 people): 62% voluntary attrition, 38% involuntary attrition | Reduced to international mining industry average (12% - 15%), retention mechanisms are effective |
| | Job attrition Rate differences | Logistics: 22%, Production: 10.8%, Technical: 3.2%, Digital: 5.4% | Digital roles have a slightly higher attrition rate than core technical roles due to external opportunities |
| | Nationality attrition differences | Local: 18.2%, Chinese: 2.9% | Local attrition rate decreased by 7.4 percentage points compared to 2023, with improved career development pathways |
| Voluntary attrition reasons | Compensation factors | 72 people (59% of voluntary attrition): Digital roles have insufficient salary competitiveness | Salary adjustments needed for core positions to align with international standards |
| | Development factors | 38 people (31.1% of voluntary attrition): Local employees' demand for digital skills improvement unmet | Need to increase resources for digital training |
| | Living factors | 12 people (9.9% of voluntary attrition): Significant improvement in safety and guarantee satisfaction | Enhanced security and living conditions show positive results |

From the data, it can be seen that the company's talent distribution and mobility present two major improvements and one new challenge:

“Continuous Optimization of Distribution Fit”: In the beneficiation operations,

local employees' participation in core processes has increased from a supporting role to 45%. The pressure on technical support in mining operations has eased, reflecting successful technology transfer.

“Significant Improvement in Retention Ability”: The total attrition rate has decreased to the industry average, with the local employee attrition rate dropping by 7.4 percentage points. This is closely linked to improvements in career development channels and upgraded living guarantees.

“Digital Talent Mobility Risk Highlighted”: The attrition rate for digital positions is 5.4%, mainly due to insufficient salary competitiveness and limited opportunities for skill enhancement. This has become a new talent retention challenge. To address these issues, the company needs to specifically improve the salary for digital roles, establish cross-sequence promotion pathways from operation roles to technical and digital roles, and expand digital skill training coverage.

Talent Training and Development

Talent training and development are critical methods for enhancing employee capabilities and retaining core talent, directly affecting the sustainability of the company's workforce. MCC Jiangxi Copper Aynak Mining Co., Ltd. has drawn on the experience of Chinese companies in North Africa for localized talent cultivation and upgraded its “teach a man to fish” training system. The focus has been on strengthening digital skills and building local teaching staff. However, there are still issues such as “insufficient training resource allocation” and “disconnected career development pathways.” Specific data is shown on **Table 4**.

Table 4. Talent training and development statistics of MCC Jiangxi Copper Aynak Mining Co., Ltd.

| Statistical dimension | Training/development type | Specific implementation | Effectiveness evaluation |
|---------------------------|--------------------------------|--|--|
| Training system | New employee training | 100% coverage for new employees (528 people), local 10 days, Chinese 5 days, added digital basic courses | Reduced on-the-job adaptation period to 1-month, practical training increased to 55% |
| | Job skills training | 68 sessions, 3240 people trained: 12 digital sessions (35% local participation), technical training with 58% local participation | Significant improvement in local technical abilities, but digital training coverage insufficient |
| | Cross-cultural/safety training | 12 cross-cultural sessions (1:1 local to Chinese participation), 24 safety sessions (full employee coverage) | Cross-cultural collaboration efficiency improved by 30%, safety incidents decreased by 50% from 2023 |
| Training resources | Internal trainers | 42 trainers: 28 Chinese, 14 local, 6 new digital instructors | Local trainer communication efficiency improved by 40%, language barriers largely resolved |
| | External resources | Collaborated with 4 schools (2 Chinese, 2 Afghan), 86 expatriate training sessions (22 local) | Increased local expatriate ratio, learned from Congo's “Exceptional Artisan” project experience |
| | Training facilities | New digital practical training classrooms (80-person capacity), smart equipment simulators for practical training | Can meet 70% of complex operation training needs, does not affect production schedule |

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|-----------------------------------|----------------------|---|---|
| Career development support | Promotion pathways | Chinese: Technology/management/digital three sequences; Local: Operation - technology - management/digital cross-sequence pathway | Local technical role promotion rate increased by 25% from 2023, digital pathway needs further development |
| | Mentor-mentee system | 216 pairs (1 Chinese to 2 - 3 locals), trained 86 local technical staff, 12 digital staff | Training efficiency improved by 60%, but digital talent output still insufficient |
| | Career guidance | 100% Chinese coverage, 65% local coverage, added digital career direction guidance | Increased clarity of career development expectations for local employees, but implementation support is lacking |

From the data, it is clear that the company's talent training and development show three major advances and two major shortcomings:

“Significant Upgrading of Localized Training System”: The proportion of local trainers has reached 33%, with mutual coverage in cross-cultural training. The “Chinese mentoring + school cooperation” model has proven effective.

“Digital Training in Its Early Stages but Insufficient”: Although new courses and facilities have been introduced, local participation is only 35%, and the pace of talent development is lagging behind the need for intelligent mining upgrades.

“Career Development Pathways Gradually Improved”: The cross-sequence promotion pathways for local employees have been opened, but the digital pathway and support for career development in this area are still weak. To address these issues, the company must invest more in digital training resources, refer to Congo's “Exceptional Artisan” project model to create specialized training plans, and improve career development support for digital roles by implementing a “training-certification-promotion” loop to accelerate talent growth.

3.5. Talent Selection System at MCC Jiangxi Copper Aynak Mining Co., Ltd.

3.5.1. Current Issues in the Talent Selection Mechanism

The current talent selection system at MCC Jiangxi Copper Aynak Mining Co., Ltd. faces several challenges, including the reliance on a one-size-fits-all selection standard, a lack of flexibility in the selection process, and an outdated approach that doesn't adapt to the evolving demands of the mining sector, especially in Afghanistan. The company's selection process primarily focuses on hard qualifications such as educational background and work experience but overlooks soft skills, such as cross-cultural communication, adaptability, and the ability to align with the company's strategy. These shortcomings hinder the ability to effectively address Afghanistan's unique operating environment. Notably, the existing system does not effectively integrate local talent development, which significantly affects the company's long-term goals and the efficient operation of mining projects. Moreover, there are inefficiencies in cross-departmental coordination and local candidate compatibility, with current evaluations failing to cater to the distinct needs of different roles, particularly in adapting to the intelligent transformation of mining processes.

3.5.2. Problems in the Talent Selection Process

The company's talent selection process is fragmented and lacks the flexibility to meet the dynamic needs of the industry. The approval process for management and technical roles involves multiple layers, leading to delays. For example, the average approval time is 14 days, far exceeding the industry average of 7 days. In addition, the existing process doesn't adequately address the varying needs of different departments, leading to inefficiencies. For instance, there is a mismatch between local candidates' experiences and the requirements for management and technical roles, especially in cross-cultural management and technical transfer. Local candidates, despite having potential, face challenges in passing the evaluation due to cultural differences and lack of relevant international experience. This discrepancy has resulted in the underperformance of the selection process, where the failure rate for local candidates remains high. Furthermore, there is a lack of a dynamic adjustment mechanism that aligns the selection standards with evolving business needs and external factors like changes in Afghanistan's political landscape and the mining industry's technological developments.

3.5.3. Talent Selection Standards and Requirements

The company's current selection standards emphasize hard qualifications such as education and work experience, focusing on traditional technical qualifications. However, these standards fail to address the evolving needs of modern mining projects, especially in the context of intelligent transformation and digitalization. For example, digital positions like data analysts and intelligent mining operators require advanced skills in areas such as Python, SQL, and IoT technologies, but the current standards mainly focus on basic engineering degrees and previous mining experience. There is an urgent need to expand the standards to include competencies such as digital skills, adaptability to intelligent systems, and cross-cultural collaboration. Additionally, there is a lack of integration between the company's localization strategy and talent selection standards. Local candidates, especially in technical roles, lack the required skills for digital transformation, which has led to insufficient local talent in positions that require both technical expertise and adaptability to modern mining technologies.

3.5.4. Inefficiencies in the Selection Process and Lack of Adaptability

The talent selection process is currently too rigid, which prevents the company from effectively addressing the rapidly changing demands of the mining industry in Afghanistan. For example, the company's talent selection standards have not been updated to reflect the shift towards intelligent mining and digitalization. The new digital positions require different skills from traditional roles, but the existing standards still focus primarily on conventional technical expertise. This failure to update the standards results in inefficiencies, such as the need for extensive additional training for new hires. Similarly, the process doesn't provide a flexible mechanism for adapting to changing recruitment needs. This is especially problematic when it comes to managing fluctuating market conditions, such as changes

in international copper prices or new mining regulations in Afghanistan. The process of recruiting digital skills is also cumbersome, with the company relying heavily on traditional recruitment methods that are not equipped to deal with the growing demand for high-tech talent. As a result, there is a disconnect between the company's current recruitment capabilities and the changing demands of the mining industry.

4. Optimization Strategy for the Talent Selection System

4.1. Talent Selection Goals and Principles

The talent selection goals at MCC Jiangxi Copper Aynak Mining Co., Ltd. are aligned with both internal and external environmental needs and strategic objectives. The company's talent selection system is structured to focus on three key dimensions: quantity supply, quality matching, and structural optimization. Regarding quantity, the company must bridge the gap created by the dual strategies of intelligent upgrades and localization. By 2026, the goal is to recruit 50 digital talents and 83 local technical talents to ensure that the company meets its objectives of 30% smart mining and 50% data-driven beneficiation. In terms of quality, the company has created a matching mechanism that ensures selected candidates' skills align with the company's strategic goals, focusing on cross-cultural collaboration, compliance risk management, and cost optimization for management roles, and on intelligent skills and technical transfer capabilities for technical roles. From a structural perspective, the company aims to reduce its reliance on expatriate staff and increase the percentage of local employees, aiming to achieve 30% of technical roles and 25% of management roles by 2026. This framework addresses current issues of mismatched standards and inefficiencies in the existing recruitment system.

4.2. Recruitment Channels Diversification and Integration Path

To overcome the limitation of existing recruitment channels and ensure the selection of high-quality talent, MCC Jiangxi Copper Aynak Mining Co., Ltd. will diversify and integrate both international and domestic recruitment channels. On the international front, the company plans to expand its cooperation with specialized mining recruitment firms, such as SPi Global and Mineral Resources Recruitment, which focus on the mining sector and have strong networks in Central Asia. These agencies will help source high-level digital and management talent with relevant experience in Afghanistan projects, aiming to recruit at least 50 digital and management candidates by 2026. Domestically, the company will strengthen its collaboration with Chinese mining enterprises and universities. For instance, the company will partner with the China University of Mining and Technology to offer specialized mining courses for Afghan students. The plan also includes increasing the involvement of local labour agencies and expanding the company's local hiring reach, increasing the supply of local candidates by 40%. In terms of integration, a three-tiered cooperation model will be implemented that links in-

ternational recruitment with domestic training programs and on-site operations, ensuring a smooth, synchronized talent pipeline from selection through integration into the company.

4.3. Refined Improvement and Innovation of the Selection Process

The company recognizes the need for an efficient, precise talent selection process to improve operational efficiency and reduce delays. To this end, the selection process will undergo refinement and innovation across key stages. Resume screening will be upgraded with an AI-powered system that scans resumes for predefined keywords, increasing screening efficiency by 400% and reducing the risk of missing qualified candidates. For the interview stage, the company will implement multi-dimensional interview plans, such as three-round progressive interviews for management roles and practical skill assessments for technical positions. These changes will focus on cultural adaptability, smart skills, and cross-cultural collaboration. The company's background check process will be strengthened by introducing a three-tier audit mechanism that ensures a thorough evaluation of candidates' professional history, integrity, and project experience. Additionally, a data-driven decision-making model will be implemented, integrating scoring models from resume reviews, interviews, and background checks to provide a comprehensive and objective hiring decision. These improvements aim to reduce the selection cycle by 30% and increase job match accuracy to 90%. This overall process optimization will ensure that the company attracts and retains high-quality, strategically aligned talent to support its long-term growth and goals.

5. Implementation of Talent Selection System

5.1. Organizational Support Measures

To ensure the effective implementation of the talent selection system, MCC Jiangxi Copper Aynak Mining Co., Ltd. has established a cross-departmental, multi-level "Talent Selection Task Force". This task force, led by the Vice General Manager of Human Resources, is the core execution body responsible for overseeing all selection processes. The task force includes key department leaders from Headquarters Human Resources, Project Site Management, Compliance, and other departments, ensuring that the selection efforts align with both business goals and local needs. Regular quarterly meetings and monthly reviews are held to monitor progress, assess challenges, and adjust strategies based on real-time data, such as recruitment performance and market trends. This structure ensures that talent selection is not only consistent with the company's strategic goals but also adaptable to evolving needs in intelligent mining and localization efforts.

5.2. Implementation Support for Talent Selection System

The talent selection system at MCC Jiangxi Copper Aynak Mining Co., Ltd. is supported by a clear set of organizational processes and systematic coordination

across departments. The Human Resources Department is responsible for the design of the system, including the management of both international and domestic recruitment channels. Meanwhile, the Project Site Human Resources Team focuses on local talent Development, handling key tasks such as community engagement and managing local labour agencies, ensuring that talent selection aligns with the company's localization strategy. A key feature of the system is the integration of AI tools for resume screening and candidate assessments, improving the accuracy and speed of the recruitment process. The company has also streamlined processes through differentiated interview designs, ensuring candidates are assessed on the competencies required to succeed in the mining sector. The implementation of machine learning algorithms to optimize recruitment decisions ensures that the selection system remains responsive to the company's evolving needs, achieving 90% job-matching accuracy and a 30% reduction in selection cycle time.

5.3. Resource Support

To support the implementation of the talent selection system, the company has increased its investment in human resources and technological tools. At the Headquarters, the Human Resources Department has expanded by adding two specialists focused on multinational mining talent selection, improving coordination with international headhunters and managing the use of digital selection tools. On-site, the company has added two regional recruitment points in Herat and Kandahar, each staffed with local recruiters fluent in Pashto and Chinese, ensuring more effective recruitment in remote areas. The company has also upgraded its digital selection platform, incorporating three modules: intelligent assessment tools for both technical and management roles, a data analytics module for tracking recruitment performance, and a multi-language support module to enhance communication with local candidates. Additionally, training resources are allocated to develop both local talent and Chinese employees, with specialized funds such as the local talent training fund of 500,000 RMB, ensuring a well-rounded workforce capable of supporting the company's expansion and long-term sustainability.

5.4. Cultural Support and Creation

To create an environment that supports the talent selection system, MCC Jiangxi Copper Aynak Mining Co., Ltd. emphasizes cultivating a culture of talent appreciation throughout the organization. This is achieved through internal awareness campaigns, such as publishing a "Talent Selection Column" that shares successful cases and explains selection policies. The company holds quarterly talent recognition conferences, awarding bonuses and honour certificates to high-performing teams and individuals, promoting an inclusive atmosphere that respects talent and selects excellence. In terms of practical activities, the company organizes "Talent Selection Open Days" to help employees learn about the selection process and

address any concerns about the new system. Furthermore, employees are encouraged to participate in talent referral programs, with additional rewards for referring high-quality candidates. On the innovation front, the company introduces initiatives such as the Talent Selection Innovation Proposal Award, which motivates employees to propose system optimizations. Additionally, cross-department collaboration challenges are held to enhance teamwork and boost efficiency. These cultural initiatives aim to build a strong organizational culture that promotes participation, innovation, and collaboration, ensuring the success of the talent selection system.

5.5. Limitations

Despite providing a systematic analysis and optimization strategy for the talent selection system of MCC Jiangxi Copper Aynak Mining Co., Ltd., this study has several limitations.

First, the study is primarily based on a single case company, which may limit the generalizability of the findings. Although the conclusions are relevant to similar mining enterprises operating in cross-national contexts, differences in organizational structure, regional policies, and market conditions may affect applicability.

Second, the data used in this research rely partly on internal reports, assumptions, and projected targets (e.g., 2026 talent goals). As a result, some proposed outcomes such as improvements in matching accuracy or retention rates are predictive rather than empirically validated.

Third, the implementation feasibility of the proposed optimization measures may be constrained by external factors, including political instability, regulatory changes in Afghanistan, and fluctuations in the local labor market. These uncertainties could influence the effectiveness of the redesigned selection system.

Fourth, while the study emphasizes digital tools such as AI-based resume screening and data modeling, it does not fully address potential risks, including algorithm bias, data quality issues, and the technical capacity required for implementation.

The research focuses mainly on the selection stage of talent management. Although a “selection training” linkage is proposed, other aspects such as long-term career development, performance evaluation, and organizational culture integration are not explored in depth.

6. Conclusions

This study examines the talent selection mechanism at MCC Jiangxi Copper Aynak Mining Co., Ltd., identifies its major weaknesses, and proposes a systematic optimization plan.

- First, the current selection mechanism suffers from four major problems: single standards, limited channels, inefficient processes, and inadequate collaboration. These weaknesses create a mismatch between the company’s talent needs and both its internal and external environment. Internally, the company

is falling short of its 2026 targets for digital talent and local employees. Externally, Afghan regulations require a 60% local talent ratio, while competitors attract candidates with higher salaries. In addition, low resume-screening efficiency and lengthy coordination cycles further reduce the effectiveness of talent selection.

- Second, the redesigned selection system, built around the framework of “strategic anchoring - layered selection - dynamic iteration,” addresses the fragmentation of the existing mechanism and establishes a closed-loop system. Under this system, the company aims to recruit 50 digital talents and 83 local technical talents by 2026, while increasing the number of local candidates by 40% through improved recruitment channels. By optimizing AI-based resume screening, differentiated interviews, and comprehensive background checks, the company is expected to raise job-matching accuracy to 90% and reduce the selection cycle by 30%.
- Third, the new system improves talent selection by emphasizing both cross-national adaptability and mining expertise. Through a multilingual platform and stronger community cooperation, local talent retention is expected to increase from 18.2% to over 80%. For technical positions, intelligent equipment simulation and data modeling will support the company’s goal of intelligent transformation. In addition, the “selection-training” closed loop, supported by a RMB 500,000 talent training fund, is expected to shorten employee adaptation time to two weeks and raise probation success rates to over 90%.

Conflicts of Interest

The authors declare no conflicts of interest.

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