

Human Resource Strategies and Performance of Human Consumption Salt Mining Companies: Perspectives from Kenya

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Abstract

Companies have the potential to improve their performance and longevity by implementing business response techniques, which streamline corporate market processes. However, the effect of human resource strategies on the performance of Kenyan human consumption salt mining companies remains unclear. Consequently, this study sought to assess the effect of Human Resource Strategies on the performance of human consumption Salt mining companies in Kenya. The study was anchored on Human Capital Theory. The study used a descriptive cross-sectional study design. A census survey method was employed whereby all 45 respondents took part. A drop-and-pick method was employed to collect data from a structured questionnaire. For the purpose of data analysis, SPSS Version 27 was utilized. Descriptive and inferential statistics, including regression analysis, were used to evaluate the effect of human resource strategies on performance. Ethical approval from NACOSTI and Dedan Kimathi University were sought before data collection to guarantee compliance with the utmost standards. The correlation results showed a positive and significant association between human resource strategies and performance ($r=0.632$, $p=0.000$). Similar findings were established in regression analysis where a positive and statistically significant effect of human resource strategies on performance was found ($\beta=0.523$, $p=0.000$). The study concluded that human resource strategies have a positive and significant effect on performance of human consumption Salt mining companies in Kenya. Specifically, strategies such as compensation, cross functional training and employee engagement enhance performance of a company. The study recommends that human consumption Salt mining companies in Kenya should continuously invest in adaptive human resource strategies such as compensation strategies, cross functional strategies and employee engagement strategies.

Keywords: *Human Resource Strategies, Compensation, Employee Engagement, Cross-Functional Training, Organizational Performance, Human Consumption Salt Mining Companies.*

1.0 Introduction

The modern business environment is characterized by rapid changes and uncertainties (Mulolli & Boskovska, 2020). The effectiveness of business environment is often measured by their impact on organizational performance, which is assessed through various metrics such as financial performance, operational efficiency, market share, and customer satisfaction. Performance encompasses the achievement of goals and quality outcomes, not solely economic efficiency and effectiveness (Akpa, Asikhia & Nneji, 2021). It is the result-oriented process of attaining organizational objectives. Firm performance is measured through various metrics including growth rate, market share, competitiveness, and profit. Financial measures such as Economic Value Added (EVA), Return on Equity (ROE), and Dividend per Share (DPS) are commonly used indicators, while non-financial metrics target customer satisfaction and long-term financial results (Kori, Muathe & Maina, 2020).

Salt mining is a significant industry globally, with numerous countries contributing to salt production. Salt is a critical mineral used in various industries, including food preservation, chemical production, water treatment, and road de-icing. The global salt market is substantial, with production estimated at approximately 290 million metric tons in 2020 (USGS, 2021). The market's growth is driven by increasing industrial demand and the essential nature of salt in daily life. China is the largest producer of salt, with an annual production of approximately 60 million metric tons (Bagastyo et al., 2021). The country's vast production capacity is supported by both sea salt and rock salt mining operations. Salt mining is a significant contributor to China's economy, supporting various industries, including chemical manufacturing and food processing. China has invested in modern mining technologies to improve on efficiency and to reduce the environmental impact (Feng et al., 2021). For instance, the adoption of solar evaporation techniques in coastal areas has minimized energy consumption.

The United States is the second-largest salt producer, with an annual production of 42 million metric tons (USGS, 2021). Major salt-producing states include Louisiana, New York, and Michigan. The U.S. salt industry is a crucial part of the economy, particularly in regions where road de-icing is essential during winter. The economic impact of salt mining extends beyond direct revenue. The industry supports numerous jobs, contributes to local and national economies, and provides raw materials for various industrial applications. For example, the U.S. salt industry's contribution to road safety during winter months highlights its indirect economic benefits (Sparacino, Stepenuck & Hurley, 2024). The adoption of new technologies in salt mining has significantly improved efficiency and reduced environmental impact. Automation, real-time monitoring, and advanced extraction methods have enhanced productivity while ensuring worker safety and environmental sustainability.

India ranks third in global salt production, with an output of 29 million metric tons annually (USGS, 2021). The majority of salt production in India comes from solar evaporation in coastal areas. Salt mining supports the livelihoods of thousands of workers, particularly in states like Gujarat, which accounts for over 75% of India's salt production. Despite its large production volume, the Indian salt industry faces challenges such as labor disputes, environmental concerns, and competition from other countries (Pertiwi et al., 2023). Similarly, Germany is a leading producer of rock salt, with an annual production of 12 million metric tons (USGS, 2021). The country has extensive underground salt deposits. The German salt industry supports the chemical sector, particularly in the production of chlorine and caustic soda (Anwar & Abdullah, 2021). German companies have pioneered advanced mining technologies, such as automated machinery and real-time monitoring systems, to enhance productivity and safety. The production volume of salt is a primary indicator of the industry's performance.

In Sub-Saharan Africa, the salt mining industry plays a crucial role in supporting various sectors, including food preservation, chemical manufacturing, and in some regions such as South Africa in road maintenance. According to Aminga (2022), many salt mining companies are adopting advanced technologies to improve efficiency and productivity. This includes the use of solar evaporation techniques, mechanical harvesting, and automated processing systems. With increasing environmental concerns, companies are implementing sustainable practices such as reducing water usage, minimizing land degradation, and managing waste more effectively (Mukira et al., 2022). In addition, Agoro (2019) proposes that adhering to local and international regulations is critical for maintaining market access and ensuring the long-term viability of the operations. Companies invest in compliance programs to meet environmental, health, and safety standards. To mitigate risks associated with market fluctuations, salt mining companies diversify their markets by expanding export destinations and developing new product lines.

Ethiopia is an important player in the African salt mining industry, primarily due to the extensive salt flats in the Afar Depression. The country produces an estimated 300,000 metric tons of salt annually (FAO, 2020). The salt is primarily harvested through traditional methods, where brine is evaporated in large pans (Woldekiros, 2023). As a result, the industry supports local economies, particularly in the Afar region by providing jobs for thousands of workers involved in extraction, transportation, and distribution. Besides, Senegal is a prominent salt producer in West Africa, with production estimated at 400,000 metric tons per year (FAO, 2020). It provides employment for over 20,000 people, contributing to the livelihoods of many communities (Gaye & Sene, 2017). However, Senegalese salt mining faces environmental challenges such as land degradation and water pollution. Therefore, despite facing challenges such as environmental impact and harsh working conditions, the African salt mining industry continues to grow and innovate, supported by efforts to adopt more sustainable practices and advanced technologies.

According to the Ministry of Energy and Mineral Development (2021), Uganda's salt production only meets about 30% of the national demand, leading to a reliance on imports from neighboring countries. Efforts are being made to modernize the industry, with companies beginning to explore mechanical harvesting and automated processing systems to improve efficiency (Aminga, 2022). Environmental concerns are significant, as traditional salt extraction has caused land degradation and water pollution in the Katwe region. Mukira et al. (2022) pointed out that companies were adopting sustainable practices, such as waste management and reduced water usage, to mitigate these effects. In addition, Agoro (2019) recommends that adhering to local regulations, such as the Mining Act of 2003 and the National Environment Act of 2019, is essential for maintaining market access and ensuring the industry's long-term sustainability.

Tanzania's salt mining industry is one of the most developed in East Africa, with major operations concentrated in regions like Uvinza, Bagamoyo, and Lindi. The Tanzanian government has been instrumental in supporting the industry through favorable policies, tax incentives, and infrastructure development, which have facilitated growth and attracted foreign investment. Tanzania produces over 300,000 metric tons of salt annually, supplying both domestic and regional markets (Tanzania Chamber of Minerals and Energy, 2020). However, environmental sustainability remains a concern, with companies implementing water recycling systems and land restoration programs to minimize ecological impacts (Mukira et al., 2022).

Kenya's salt mining industry though relatively small compared to other sectors, plays a crucial role in the country's economy. It dates back to ancient times when communities harvested salt from the sea and salt lakes using traditional methods (Gakweli, 2023). Coastal communities,

particularly around the Indian Ocean, were known to extract salt for preservation and trading purposes. The commercial extraction of salt began in the mid-20th century, with the establishment of more organized and mechanized operations. The commercial salt mining industry in Kenya saw significant growth from the 1950s onwards, with several companies establishing operations along the coast, particularly in the Malindi and Magarini regions. Established in the late 1950s, Krystalline Salt Limited is one of the oldest and largest salt producers in Kenya, known for its extensive salt pans and modern processing facilities (Ekrami, Nemati Mansour, Mosaferi & Yamini, 2021).

Another significant player, Malindi Salt Works, began operations in the 1970s, focusing on both human consumption and industrial salt. Founded in the 1980s, Kensalt has grown to become one of the leading salt manufacturers in East Africa, exporting significant quantities to neighboring countries (Agoro, 2019). Other human consumption salt companies include Kurawa Industries Limited, and Kemu Salt Packers Production Limited. A report by the Kenya National Bureau of Statistics (KNBS, 2023) indicated that the Kenyan salt producers face stiff competition from other regional players, such as Tanzania and Egypt, which can affect market share and profitability. The term business environment connotes external forces, factors, and institutions that are beyond the control of the business and how they affect the functioning of the business enterprise (Raheem, 2022). The business environment affects things like the decisions, strategies, processes, and performance of the business or organization (Nudurupati, Garengo & Bititci, 2021). The environment consists of those factors which are beyond the control of the organization itself. These factors include the legal, political, social, economic, technological factors. And these factors provide both threats and opportunities to the business (Srinivasan, Srivastava & Iyer, 2020).

Since businesses make demands on society and the society also expects demand from the business, managers in any organization must interact with and respond to environmental factors internal or external to their organization (Nudurupati, Garengo & Bititci, 2021). In dealing with these changes the type of adjustment an organization makes involves coming up with strategies to cash in on the opportunities presented, and at the same time mitigate the effects of the threats that occur from the changes. These adjustments are referred to as response strategies in response to these changes (Karanja & Omondi, 2024). Response strategies are referred to as a plan of action implemented holistically within an organization aimed at achieving a specific objective (Michalski, 2024). Business environment response strategies are therefore the approaches that business managers adopt in order to respond to these environmental factors that affect the functioning of the business (Srinivasan, Srivastava & Iyer, 2020). Strategic responses include the resolutions and actions that lead to the development and execution of plans that are geared towards achievement of the set objectives (Rudiyanto & Prayitno, 2025). The core purpose of the response strategies is to be able to implement actions meant to ensure that the organization remains on course despite the changes. A response strategy is a fundamental tool for dealing with the threats and opportunities arising from the business environment (Ingasia & Muchelule, 2023).

Business environment strategies include; marketing, cost-cutting, restructuring, innovation, risk management, competitive strategy, human resource and operational strategies which are all round strategies that can help organizations to counter the effect of the environmental changes (Phadnis, 2020; Jerab & Mabrouk, 2023). An organization should choose a strategic plan which will address the instability in the environment and must also have the resources to implement the strategy for it to succeed (Ahmad, 2024). This implies that the organization should choose a strategy that fits the objectives of its operations and they should have the resources to execute. In this study, human resource strategies were among the strategies under evaluation since they are crucial for the performance of human consumption salt mining

companies. Human resource strategies ensure a skilled and motivated workforce, essential for maintaining high productivity and safety standards in mining operations.

1.1 Statement of the Problem

The performance of Kenya's human consumption salt mining companies has remained below expectations despite increasing demand for salt products and ongoing sectoral reforms. According to the Kenya National Bureau of Statistics (KNBS, 2023), the mining and quarrying sector recorded a contraction of 11.1% in the third quarter of 2024, signaling declining productivity and reduced sectoral contribution to the national economy. Similarly, a report by the Ministry of Mining (2022) indicates that only about 30% of salt mining firms have adopted digital technologies, reflecting slow technological uptake and operational inefficiencies within the sector. These trends suggest that, despite the adoption of strategies such as automation and product diversification (Ndungu, 2019), performance outcomes remain suboptimal. The problem is further compounded by increasing competition from regional producers, particularly from Tanzania and Egypt, which has led to reduced market share and profitability for Kenyan firms (KNBS, 2023). In addition, Ngatno (2019) links weak human resource practices to low employee morale and high staff turnover. These issues point to structural and strategic gaps in how firms respond to their business environment, particularly in the area of human resource management.

The effects of this underperformance are widespread. At the macro level, the economy loses potential tax revenue and foreign exchange earnings, limiting national development (KNBS, 2023). At the organizational level, firms experience reduced profitability and competitiveness, discouraging investment. Employees are also adversely affected through job insecurity, low morale, and limited career growth opportunities. Consequently, the sector's contribution to employment creation and industrial development remains significantly below its potential. For instance, Karanja and Omondi (2024) examined the impact of innovation and restructuring response strategies on the performance of parastatals focusing on Kenya Power and Lighting Company. However, the study focused on parastatals and only studied innovation and restructuring hence the need to incorporate other strategies including human resource. Ingasia and Muchelule (2023) examined the effect of response strategies specifically innovation and risk management strategies on organizational performance of Taita Taveta county in Kenya. The study also focused on county government which is a public entity and also was limited to just innovation and risk management.

This study therefore sought to address this gap by examining the effect of human resource strategies on the performance of human consumption salt mining companies in Kenya. By anchoring the analysis on relevant strategic management and organizational performance theories, the study provides sector-specific empirical evidence to inform decision-making by managers, policymakers, and investors. Ultimately, the findings contribute to improved firm performance, enhanced competitiveness, increased government revenue, and broader socio-economic development.

1.2 Research Objective

To assess the effect of Human Resource Strategies on the performance of human consumption Salt mining companies in Kenya.

1.3 Research Hypothesis

H₀₁: Human Resource Strategies have no statistically significant effect on the performance of human consumption salt mining companies in Kenya.

2.1 Theoretical Framework

The study was anchored on Human Capital Theory. Human Capital Theory was first proposed by Schultz (1961). The theory states that individuals' knowledge, skills and abilities represent investments in human capital. Schultz argued that such investments yield returns in the form of increased productivity and economic growth (Schultz, 1961). Schultz emphasizes the importance of education, training, and workforce development in enhancing individual and organizational performance. According to Blundell et al. (1999), Human Capital Theory posits that investing in education is essential for acquiring skills and training, leading to an augmentation of individual capital. Tan (2014) further elaborates on this, suggesting that such knowledge and skills acquired through education contribute to enhanced workplace productivity. This heightened productivity, ideally, results in increased wages, as individual earnings in an ideal labor market are linked to their productivity levels. Consequently, individuals are inclined to invest in education until the point where the personal advantages from education align with the associated costs.

Proponents of Human Capital Theory argue that investments in human resources, such as education, training, and skill development, are critical determinants of organizational performance. For instance, Becker (1964) expanded on Schultz's work, developing a comprehensive framework for analyzing human capital investments. Becker's theory emphasizes the role of both formal education and on-the-job training in enhancing human capital. Applied to Human Consumption Salt Mining companies, Becker's framework suggests that investments in training programs and skills development initiatives can lead to improved productivity and performance among employees. Additionally, Schultz (1971) suggests that companies that prioritize employee development through training and education programs are better equipped to adapt to changing market conditions and technological advancements, ultimately leading to improved performance.

On the contrary, critics of the theory argue that it oversimplifies the relationship between investments in human resources and organizational performance, neglecting other important factors that influence productivity and efficiency. For instance, Solow (1985) raised concerns about skill mismatches in the labor market and the prevalence of structural unemployment, suggesting that investments in human capital alone may not address systemic issues such as job polarization and technological displacement. Additionally, the theory tends to reinforce existing inequalities in access to education and training opportunities (Bowles & Gintis, 1976). They argue that individuals from disadvantaged backgrounds face barriers to acquiring human capital, perpetuating social and economic disparities. In the context of Human Consumption Salt Mining companies, critics might highlight the need for inclusive human resource strategies that address workforce diversity and equity issues.

In this study, Human Capital Theory was used to support the variable human resource strategies. The human capital theory emphasizes that human resource are valuable assets in a company that can be useful in enhancing the performance of the company. Therefore, human resource strategies such as compensation, employee engagement initiatives and cross-functional training can be useful in enhancing the skills, competencies and experiences of human resource in human consumption salt companies. This would in turn lead to enhanced performance of the company.

2.2 Conceptual Framework

This conceptual framework, summarized in Figure 1, depict the relationship between the dependent variable, performance and the independent variable, human resource strategies. Human Resource (HR) strategies are comprehensive plans developed by an organization to align its human capital with its overall business objectives (Anwar & Abdullah, 2021). These

strategies aim to optimize the workforce, enhance employee performance, and contribute to the achievement of organizational goals.

Figure 1: Conceptual Framework

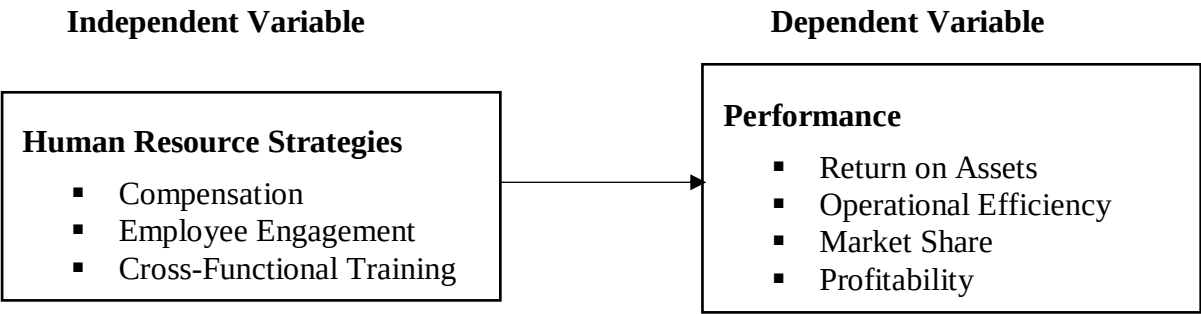


Figure 1: Conceptual Framework

2.3 Empirical Literature Review

Non-performance refers to the inability of a business to meet its operational, financial, and strategic goals, which can be attributed to several factors, including poor business-environment response strategies, inadequate human resources, weak financial structures, ineffective market management, and limited digitization of processes (Aminga, 2022). These factors collectively contribute to inefficiencies, low productivity, and overall poor performance. Globally, salt mining companies, especially those engaged in human consumption salt production, face increasing challenges, including fluctuating demand, stringent regulatory frameworks, and rising operational costs. Kenya's salt mining industry, particularly companies involved in the production of human consumption salt, faces similar challenges of non-performance. A significant factor contributing to the underperformance is the limited adoption of modern human resource strategies (Aminga, 2022). Many Kenyan salt mining companies still rely on outdated human resource models, leading to low productivity and a lack of innovation.

The impact of human resource management on the efficiency and effectiveness of Iraqi government agencies in the Kurdistan area was investigated by Anwar and Abdullah (2021). In particular, they examined the effects of decentralization, job stability, incentives, training, and selection on financial performance. The study was analyzed using a quantitative research technique. The study selected 240 respondents as the sample size. The study showed a significant correlation between organization performance and incentives, training, selective recruiting, job security, and decentralization, with correlation coefficients of 0.363, 0.406, 0.381, and 0.573 (all at $p < 0.01$), respectively. Regression analysis also showed that factors including training, job stability, incentives, and selective recruiting had little bearing on business outcomes. The results showed that decentralization had a favorable and substantial effect on organizational performance, but incentives, job security, training, and selective recruiting had no effect. Lack of a mixed-methods strategy indicated a methodological flaw in the research.

In their 2020 study, Mulolli and Boskovska looked at how HR policies and procedures affected the bottom lines of businesses in Kosovo and the rest of Southeast Europe. Selection and recruiting, professional development, and financial remuneration were the factors examined in this analysis. An approach that utilized both primary and secondary data was employed. The researchers utilized 60 surveys sent out to 60 different companies to gather primary data, and then combed through scholarly journals and articles from specialist databases like Science Direct, Emerald, and Pro Quest to find the secondary sources needed. Results for “compensation and reward” ($M=3.57$, $DS=0.866$), “recruitment and selection” ($M=3.49$), and

“training and development” ($M=3.45$, $DS=0.911$) all point to the importance of these three factors in enhancing business performance. There was a geographical gap because the study was carried out throughout Europe.

The impact of adaptable capability on the performance of small and medium-sized enterprises (SMEs) in Indonesia was investigated by Ngatno (2019). The study looked at the effects of several factors on the success of SMEs, including new products, new markets, market monitoring, competition monitoring, product modifications, and pricing modifications. There are three main regions in Central Java where batik is produced, and the study centered on the batik entrepreneur group in these regions. Participants in the study were asked to voluntarily fill out questionnaires, and the data was collected from micro, small, and medium enterprise (MSME) owners or approved managers. The study utilized 198 questionnaires that were filled out thoroughly and with sufficient information. A favorable and statistically significant relationship between adaptive capability and company success was found. When a company grows big and has been around for a while, these favorable ties often fade. This study lacked context because it only looked at SMEs.

Research by Abdulrahim and Yousif (2023) sought to determine how financial industry employees in Saudi Arabia fared when given the option to work remotely. Its stated goal was to investigate the relationship between remote work management, employee happiness on the job, and productivity. In addition, the study set out to thoroughly examine the pros and cons of remote employment. Primary data was collected by surveying a random sample of 1,270 employees from Saudi Arabian banks, credit unions, and insurance firms. To compile the data, secondary sources, such as academic papers and publications from the Saudi Central Bank (SAMA) and other international organizations, were used. Productivity, job satisfaction, remote work, and management of remote workers were found to be positively correlated, according to descriptive and inferential analyses. Employees in the financial industry were more productive as a consequence of the higher levels of job satisfaction brought about by working remotely. Working remotely has several benefits, such as encouraging employees to take ownership of their work and develop self-discipline. It also improves their well-being and work-life balance, which in turn increases productivity. Workers may have been less productive and had trouble forming social interactions at work due to obstacles such as physical isolation, less communication with coworkers and clients, and a lack of chances to learn via direct touch. This research focuses on salt mining companies in Kenya that produce salt for human use, as opposed to the previous study's emphasis on the Saudi Arabian financial sector.

Building on the above studies, the following hypothesis was proposed.

H₁: There is a significant relationship between human resource strategies and human consumption salt mining companies' performance.

In this research, the performance of human consumption salt mining companies in Kenya was represented by the dependent variable, which measures overall effectiveness, efficiency, and profitability. In order to gauge an organization's success, analysts look at a variety of metrics, both monetary and otherwise, that reveal how well the business is doing in meeting its long-term goals. Profitability, revenue growth, ROI, and cost efficiency are financial performance measures (Duong, Phan, Hoang & Vo, 2020). How efficiently a business transforms its assets into profit is determined by these metrics.

Restructuring finances, optimizing market strategy, and allocating resources efficiently are common causes of strong financial success. Non-financial performance measures, on the other hand, assess operational efficiency, customer satisfaction, employee productivity, and innovation (Onyango & Ondiek, 2021). Improved non-financial performance, such as

streamlined processes, reduced operational costs, and enhanced employee engagement through HR strategies, often translates into long-term business sustainability. In this study, performance was examined as the ultimate outcome of implementing human resource strategies in Kenya's salt mining industry.

3.0 Research Methodology

The research adopted a descriptive cross-sectional research design. The research design refers to the overall plan and strategy employed to address research questions or objectives, guiding the collection, analysis, and interpretation of data (Çalik, 2022). The chosen research design for this study was a descriptive cross-sectional approach, which involves the assessment of samples at a specific point in time without making causal statements or inferences (Siedlecki, 2020). Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It is used to answer what, where, when and how questions. A descriptive research design uses a wide variety of research methods to investigate one or more variables. Further, the researcher does not control or manipulate any of the variables, but only observes and measures them (Pandey & Pandey, 2021).

3.1 Target Population and Sampling

The target population for this study comprised all the five human consumption salt mining companies in Kenya, namely Ken Salt Ltd, Krystalline Limited, Malindi Salt Works Limited, Kurawa Industries, and KEMU Salt Packers Production Ltd. According to the Kenya Association of Manufacturers (KAM, 2022), there were five major licensed human consumption salt mining and processing companies in Kenya. The unit of analysis refers to the entities from which data is collected, which, in this case, were the five human consumption salt mining companies in Kenya. On the other hand, the unit of observation refers to the subjects whose attributes and responses are analyzed, which included employees at different managerial levels within the companies. To ensure comprehensive data collection, the study engaged nine employees from each organization. These employees were categorized into top-level managers (CEOs) one from each company, middle-level managers (Heads of Departments) one from each of the four departments namely human resource, finance, technology, and marketing, and first-line managers responsible for overseeing operational activities.

Table 1: Target Population and Sample Size

Category	Sample
Top Level Managers (CEOs)	$5 \times 1 = 5$
Middle Level Managers (HODs)	$5 \times 4 = 20$
First Line Level Managers (Operations Managers)	$5 \times 4 = 20$
Total	45

A sampling frame is a list of all units in the population from which a sample is drawn (Pandey & Pandey, 2021). This study's sampling frame consisted of 45 managers from the five human consumption salt mining companies in Kenya. Given the small population, a census approach was used, ensuring all eligible participants are included. Since the population in the current study was small but adequate for study research, that is, 45, the study used a census survey and thus the targeted sample was still the 45 respondents. When the population is too small, sampling is not necessary and thus, a census is recommended (Dubey & Kothari, 2022). By using the census survey, the results of the study can still be generalized to the entire population since the study uses a 100% total population (Pandey & Pandey, 2021).

The study included all five licensed human consumption salt mining and processing companies in Kenya as recognized by the Kenya Association of Manufacturers (KAM, 2022). Within each company, participants were drawn from four critical departments: human resource, finance,

technology, and marketing, as these functions directly related to the strategic response measures under investigation. Only employees holding managerial responsibilities, namely top-level executives (CEOs), middle-level managers (Heads of Departments), and first-line managers overseeing operational units were considered, provided they had served in their roles for at least one year to ensure adequate knowledge of organizational strategies and performance dynamics. Conversely, small-scale or unlicensed salt producers, employees in non-target departments, non-managerial staff, casual workers, and short-term employees with less than one year of service were excluded.

3.2 Data Collection Instruments and Procedure

The researcher for this study sought to use primary data. Primary data consisted of first-hand information that had not been processed or analyzed. The study's primary data was collected using structured questionnaires. These questionnaires helped gather data from top managers, middle level managers and first line level managers. Structured questions facilitated easy data analysis and reduced the time and resources needed for data collection. A questionnaire is an inexpensive and effective tool for collecting information from a population, and it helps ensure that the data is not biased due to the anonymity it guarantees (Pandey & Pandey, 2021).

The researcher obtained a confirmation letter from Dedan Kimathi University for data collection. Additionally, a research permit was secured from the National Commission for Science, Technology and Innovation (NACOSTI). A research assistant was recruited and trained to assist with the distribution and collection of completed questionnaires. Data collection in this study employed a dual approach, combining both physical administration of questionnaires and online distribution via email using Google Forms. This hybrid strategy was intended to maximize participation, ensure flexibility, and accommodate respondents' varying schedules and preferences. Participants who chose the physical method were issued with printed structured questionnaires administered by the researcher on-site, with respondents given sufficient time (30–45 minutes) to complete them in a conducive environment at their workplace. For participants preferring digital participation, the same structured questionnaire was converted into a Google Form and shared via email, with follow-ups through email reminders and courtesy calls made to encourage timely responses. Responses were then coded and entered into the Statistical Packages for Social Sciences (SPSS) version 26 for analysis.

A pilot study was conducted to assess the validity and reliability of the questionnaire in ensuring it effectively addressed the research inquiries. A pilot sample size of 1% to 10% of the target population is sufficient to detect potential flaws in the research instrument (Zhang, Gong & Brown, 2023). Given the study's total sample size of 45 respondents, a pilot sample of 4 respondents (10%) was deemed appropriate. The pilot study was conducted at Tata Chemicals Magadi Limited, which mines industrial salt, to test the effectiveness of the questionnaire in a related but non-overlapping industry.

In quantitative research, validity ascertains whether the instruments measure what they were supposed to measure and also the accuracy of the obtained results (Dubey & Kothari, 2022). To test and improve the questionnaire validity, piloting was done by issuing questionnaires to be reviewed so as to enhance validity of collected data. Validity methods that were adopted are construct and content validity. Content validity of the research instrument was established through careful definition of the research on the basis of the reviewed literature, and opinion was sought from experts in the field of business administration. Factor analysis was used to test construct validity. The findings showed that the p value was $0.00 < 0.05$ which means that there was a correlation among the items hence construct validity was upheld.

Table 2: Validity Test Results (KMO and Bartlett's Test)

Test	Statistic	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.301
Bartlett's Test of Sphericity	Approx. Chi-Square	371.829
	Df	276
	Sig.	0.000

Reliability is the extent to which the results reproduced over time are consistent and accurate and highly represent the population being studied. An instrument is said to be reliable when the study results can be achieved using the same methodology (Dubey & Kothari, 2022). Cronbach's alpha method was adopted in the case of this study to determine reliability of the instrument used. Cronbach alpha of 0.7 indicates that the data was reliable, with rules of thumb of >0.9 – Excellent, >0.8 – Good, >0.7 – Acceptable, >0.6 – Questionable, >0.5 – Poor and <0.5 – Unacceptable. The acceptable value of 0.7 was used as a cut-off of reliability for this study.

3.3 Data Analysis and Presentation

Data analysis entails the systematic application of statistical and logical tools to illustrate, describe and evaluate the collected data. The collected quantitative data from structured questionnaires were analyzed using Statistical Package for Social Sciences (SPSS) Version 27 due to its advanced statistical capabilities, user-friendly interface, and efficient data management tools (Okagbue, Oguntunde, Obasi & Akhmetshin, 2021). Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize the data and identify trends. Inferential statistics were applied to examine relationships between variables, with simple linear regression analysis determining the impact of human resource strategies on company performance. Additionally, Pearson's correlation coefficient was used to measure the strength and direction of the relationship between human resource strategies and performance. Diagnostic tests, including normality, linearity, multicollinearity, heteroscedasticity, and autocorrelation tests, were conducted to ensure the reliability and accuracy of the regression model.

The statistical model was represented as follows:

$$Y = \beta_0 + \beta X + e$$

Where:

Y = performance

β_0 = Regression constant

β = Regression coefficient

X = Human Resource Strategies

e = Error term assumed to be normal in distribution with mean zero and variance.

For qualitative data obtained from interviews, thematic analysis was used to identify recurring themes and patterns in stakeholder responses through transcription, coding, and categorization of key insights related to human resource strategies and company performance.

3.4 Ethical Considerations

All participants' rights and well-being were safeguarded by conducting the study in accordance with the strictest ethical guidelines. Ethical approval from Dedan Kimathi University of Technology and the National Commission for Science, Technology and Innovation (NACOSTI) was sought before data collection began. A comprehensive information document was distributed to all participants, outlining the study's objectives, methods, hazards, and benefits. Prior to participating in the study, all participants were asked to provide their informed consent through written documentation, indicating that participation was entirely voluntary and that they were free to discontinue at any moment without facing any penalties. The questionnaires were coded to conceal the identity of the institution and of the respondents, and all data was stored in a safe place and only accessible by the researcher. The findings were presented in aggregate form, with personal identifiers removed, to ensure that individual participants cannot be identified.

4.0 Findings and Discussion

Primary data was collected using a Likert scale questionnaire which was distributed to 45 respondents. Out of the 45 questionnaires that were administered, 41 questionnaires were completely filled and returned while 4 were not returned, representing a response rate of 91%. A response rate of 91% is very high, since it is asserted that a response rate of 60% and above is adequate for surveys. This is important since the non-response bias is reduced and the statistical power of the results enhanced.

Table 3: Response Rate

Questionnaires	Frequency	Percentage
Completed and returned	41	91
Not returned	4	9
Total	45	100

Demographic information of the respondents was collected, which included gender and age. The results showed that 73% of the respondents, forming the majority, were male, while only 27% were female. This indicates a clear gender imbalance among managerial staff in Human Consumption Salt Mining Companies in Kenya, where men occupy most management positions. This gender imbalance may weaken human resource strategies by limiting inclusivity in policy formulation, employee engagement, and talent development, which can negatively affect employee motivation, satisfaction, and retention.

On age, almost half (46%) of the respondents were 50 years and above, 37% were aged between 40 and 49 years, 12% were aged 30–39 years and only 5% were aged 20–29 years. This implies that management positions in Human Consumption Salt Mining Companies in Kenya are majorly held by older and more experienced individuals, and hence decisions regarding human resource strategies are made by professionals with industry experience.

Cronbach's alpha was used to test reliability, with an acceptable value of 0.7 used as a cut-off. The variable human resource strategies had 6 items and a Cronbach's Alpha of 0.745, while performance had 6 items and a Cronbach's Alpha of 0.716, both above the 0.7 threshold, leading to a conclusion that the instruments used in the study were reliable.

4.1 Descriptive Analysis for Performance

The dependent variable in the study was performance of Human Consumption Salt Mining Companies in Kenya. Both primary and secondary data for performance were collected. A

Likert scale was used to collect data regarding the respondent's opinion on the performance of Human Consumption Salt Mining Companies in Kenya. Table 4 presents the descriptive statistics including percentages, mean and standard deviation for performance.

Table 4: Descriptive Statistics for Performance

Statement	SA (%)	A (%)	M (%)	D (%)	SD (%)	Mean	Std. D
This company's resources are effectively utilized to optimize performance	39.0	31.7	7.3	9.8	12.2	3.76	1.39
Profitability has improved due to strategic business adjustments	46.3	19.5	4.9	17.1	12.2	3.71	1.50
Cost control measures have led to better financial stability	26.8	41.5	4.9	12.2	14.6	3.54	1.40
Operational processes have become more efficient over time	36.6	24.4	7.3	12.2	19.5	3.46	1.57
Asset productivity has significantly increased through enhanced resource allocation	34.2	29.3	9.8	12.2	14.6	3.56	1.45
Business performance has improved as a result of strategic initiatives	36.6	36.6	9.8	7.3	9.8	3.83	1.28
Overall						3.64	1.43

The findings in Table 4 revealed that 70.7% of the respondents agreed with the statement that this company's resources are effectively utilized to optimize performance, supported by a mean of 3.76 and a low standard deviation of 1.39. The findings also revealed that a high percentage of respondents (65.9%) agreed that profitability had improved due to strategic business adjustments (mean=3.71, SD=1.50). Most of the respondents (68.3%) agreed that cost control measures have led to better financial stability (mean=3.54, SD=1.40), while 61% agreed that operational processes have become more efficient over time (mean=3.46, SD=1.57). Additionally, 63.4% of respondents agreed that asset productivity has significantly increased through enhanced resource allocation (mean=3.56, SD=1.45), and majority (73.2%) agreed that business performance had improved as a result of strategic initiatives (mean=3.83, SD=1.28). The overall mean for the statements on performance was 3.64, indicating that on average, majority of the respondents agreed with the statements relating to performance, with a standard deviation of 1.43 showing that responses were mostly clustered around the mean. This implied that there is a positive link between business environment response strategies and performance. These findings were echoed by managers who stated that the strategies stabilize profitability and maintain steady growth. Secondary data for market share and ROA was also collected and analyzed, as presented in Table 5.

Table 5: Descriptive Summary for Market Share and ROA (2016–2020)

Parameter	N	Minimum	Maximum	Mean	Std. Dev.
Market Share	25	1	74	19.24	27.883
ROA	25	0.1	2.6	1.076	0.8318

The findings revealed that the minimum value for market share was 1 and maximum was 74, showing uneven distribution in market share. The minimum ROA was 0.1 and the maximum was 2.6, showing that some companies generated very high returns while others generated little returns.

4.2 Descriptive Analysis for Human Resource Strategies

Descriptive analysis was performed to help summarize the data for human resource strategies. The scale used in gathering the data was 1- strongly disagree, 2- disagree, 3- not sure, 4- agree and 5- strongly agree. Table 6 presents the descriptive summary for the variable human resource strategies.

Table 6: Descriptive Statistics for Human Resource Strategies

Statement	SA (%)	A (%)	M (%)	D (%)	SD (%)	Mean	Std. D
My organization's compensation structure aligns with industry standards and motivates me to adapt to changing market conditions	36.6	34.2	14.6	9.8	4.9	3.88	1.17
The performance-based incentives and benefits I receive help me navigate evolving job demands and market shifts	43.9	24.4	9.8	12.2	9.8	3.80	1.38
Employee engagement programs help me adapt and stay resilient in a changing work environment	26.8	34.2	17.1	17.1	4.9	3.61	1.20
I have sufficient opportunities to voice my concerns and contribute to decision-making processes that affect workplace adaptability	34.2	24.4	19.5	12.2	9.8	3.61	1.34
Cross-functional training programs enhance my ability to take on diverse roles and respond effectively to market changes	36.6	31.7	9.8	14.6	7.3	3.76	1.30
My organization encourages and provides resources to acquire new skills that improve my adaptability to changing industry demands	34.2	43.9	9.8	9.8	2.4	3.98	1.04
Overall						3.77	1.24

The findings presented in Table 6 show that 70.7% of the respondents, being the majority, agreed with the statement that their organization's compensation structure aligns with industry standards and motivates them to adapt to changing market conditions (mean=3.88, SD=1.17). The findings also revealed that 68.3% of the respondents agreed that the performance-based

incentives and benefits they receive help them navigate evolving job demands and market shifts (mean=3.80, SD=1.38). Similarly, 61% agreed that employee engagement programs, such as wellness initiatives, feedback mechanisms, and team-building activities, helped them adapt and stay resilient in a changing work environment (mean=3.61, SD=1.20).

Further, 58.2% of respondents agreed that they had sufficient opportunities to voice their concerns and contribute to decision-making processes that affect workplace adaptability (mean=3.61, SD=1.34). In a similar manner, 68.3% of respondents agreed that cross-functional training programs in their organization enhance their ability to take on diverse roles and respond effectively to market changes (mean=3.76, SD=1.30). Finally, 78.1% of respondents agreed that their organization encourages and provides them with resources to acquire new skills that improve their adaptability to changing industry demands (mean=3.98, SD=1.04). The overall mean for the statements on human resource strategies was 3.77, indicating that on average, the majority of the respondents shared similar views on human resource strategies adopted by Human Consumption Salt Mining Companies in Kenya, with a standard deviation of 1.24.

4.3 Correlation Analysis

Correlation analysis was performed to assess the strength as well as the direction of the association between human resource strategies and performance. Table 7 shows the findings.

Table 8: Correlation Analysis Results

		Performance	Human Resource Strategies
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Human Resource Strategies	Pearson Correlation	.632**	1.000
	Sig. (2-tailed)	0.000	

** Correlation is significant at the 0.01 level (2-tailed). N = 41.

Based on the findings in Table 8, the correlation between human resource strategies and performance is positive and statistically significant ($r=0.632$, $p=0.000$). This implies that when human resource strategies improve, so does performance. Therefore, when companies implement better human resource strategies as business environment response strategies, their performance increases.

4.4 Diagnostic Test for Linearity

Test for linearity was done through scatter plots to visually check this assumption. Figure 2 presents the linearity test results for human resource strategies and performance. The results show that the scatter plots trend upward and that the regression line fits well without a nonlinear pattern. This means that the relationship between human resource strategies and performance is linear, hence confirming the linearity assumption of regression. Therefore, a linear regression analysis model is suitable for analyzing the relationship.



Figure 2: Scatterplot of Performance against Human Resource Strategies

4.5 Regression Analysis

The objective of the study was to assess the effect of human resource strategies on the performance of human consumption Salt mining companies in Kenya. To assess this effect, simple linear regression analysis was performed. The findings are presented in Tables 8, 9 and 10.

Table 8: Model Summary for Human Resource Strategies and Performance

R	R Square	Adjusted R Square	Std. Error of the Estimate
.632 ^a	0.400	0.385	0.48355

The findings in Table 8 show that the R square was 0.4, which means that 40% of the variations in the dependent variable performance was explained by human resource strategies.

Table 9: ANOVA for Human Resource Strategies and Performance

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.079	1	6.079	25.997	.000 ^b
Residual	9.119	39	0.234		
Total	15.198	40			

The findings revealed that $F(1,39) = 25.997$ and $p = 0.000 < 0.05$, which means that the regression model was statistically significant and hence human resource strategies significantly explain variations in performance. Therefore, the model was a good fit compared to the model without the independent variable.

Table 10: Coefficients for Human Resource Strategies and Performance

	B	Std. Error	Beta	t	Sig.
(Constant)	1.671	0.394		4.243	0.000
Human Resource Strategies	0.523	0.102	0.632	5.099	0.000

The findings in Table 10 revealed that there is a positive and statistically significant effect of human resource strategies on performance ($\beta=0.523$, $p=0.000$). This means that, holding other factors constant, a one unit increase in human resource strategies is associated with a 0.523 unit increase in performance. This implies that companies that invest in staff development, compensation and employee engagement achieve higher performance. These findings were supported by responses from the interview guides, where managers emphasized that human resource strategies such as compensation and training motivate employees to work harder, hence producing positive outcomes that enhance organizational performance. One manager stated that compensation packages, employee engagement and regular training motivate employees, and when they lack, the employees are demotivated, which leads to poor employee performance due to lack of job satisfaction while others leave the organization. Another manager stated: “Cross functional training makes employees to be flexible and adaptable, enabling them to handle multiple assignments which comes with extra benefits, hence enhancing job satisfaction among the employees.”

However, managers cited a number of challenges they face while implementing training and development programs for employees that revolved around training costs and resistance from employees. For instance, a manager noted that some employees resist cross functional training citing exploitation possibilities. Another stated that they face the challenge of a restrained budget which cannot cover the high costs associated with regular training of employees.

These findings agreed with the findings in the study by Mulolli and Boskovska (2020), who established that compensation, reward, training and development are important factors in enhancing business performance. These findings, however, contrasted with those of Anwar and Abdullah (2021), who found that incentives, job security, training, and selective recruiting had no effect. Consequently, the null hypothesis was rejected. The study thus finds that human Resource Strategies have statistically significant effect on the performance of human consumption salt mining companies in Kenya.

5.0 Conclusion

The study concludes that human resource strategies have a positive and significant effect on performance of human consumption Salt mining companies in Kenya. Specifically, strategies such as compensation, cross functional training and employee engagement enhance performance. Further, greater adoption of these strategies improves performance. Adoption of compensation practices, cross functional training strategies and employee engagement strategies as adaptive measures to changing business environment enhances the performance of a company. Proactive alignment of human resource practices with changing environmental demands improves operational efficiency, increases ROA, market share and profitability of human consumption Salt mining companies in Kenya.

6.0 Recommendations

Based on the conclusions made in the study, it is recommended that the human capital theory should be expanded to include adaptive and resilience driven training in addition to productivity driven training. The study recommends that human consumption Salt mining companies in Kenya should continuously invest in adaptive human resource strategies such as compensation strategies, cross functional strategies and employee engagement strategies. Human consumption Salt mining companies in Kenya are also recommended to prioritize aligning their human resource practices with the demands of a changing business environment, so as to remain resilient and sustain good performance.

For policy, the study suggests that the government of Kenya and the regulators of human consumption Salt mining companies in Kenya should establish an enabling environment that would encourage the companies to effectively adopt human resource strategies. This can be achieved through such measures as tax incentives, favorable financial policies, and provision of subsidies that would encourage such practices. The policymakers are also recommended to come up with training programs that would equip the management of human consumption Salt mining companies in Kenya with skills in human resource strategies.

The study was conducted among human consumption Salt mining companies in Kenya. Future studies may be conducted among other companies in the manufacturing sector. The study also focused on human resource strategies but this did not fully explain variations in performance. Therefore, future researchers can assess other strategies such as strategic partnerships, supply chain management strategies and innovation strategies.

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