

Influence of Firm's Resource Portfolio on Organizational Performance of Pharmaceutical Companies of Kenya

Evelyn Ngaruiya^{1*}, George K'aol² and Kefah Njenga³
^{1,2,3} *United States International University - Africa, Nairobi, Kenya*
* *Corresponding Author's, Email: evelynngaruiya@gmail.com*

Cite: Ngaruiya, E., K'aol, G., & Njenga, K. (2023). Influence of Firm's Resources Portfolio on Organizational Performance of Pharmaceutical Companies in Kenya. *The University Journal*, 5(2), 136-149.

Abstract

Strategic Leadership bridges the gap between strategy and organizational performance; a critical role for the strategic leader is managing the firm's resource portfolio. Consequently, this study sought to establish the influence of managing a firm's portfolio on the organizational performance within pharmaceutical companies in Kenya, and the study was grounded on strategic leadership theory. The firm's resource portfolio was operationalized through 3 resources: human capital, financial capital, and social capital. The study was anchored on positivism philosophy with a descriptive design approach. A stratified simple sampling was used to target 390 senior managers within three strata, namely, local companies, generic companies, and research and development multinationals, proportionately to achieve a respondent rate of 82%. The results were analysed using descriptive and inferential models. Specifically, the hypothesis was tested through correlation, chi-square, one-way ANOVA, ordinal logistic regression, and parameter estimates. From the study findings, ordinal logistic regression results indicated that a 7.7% variation in organizational performance was explained by resource portfolio, Nagelkerke Pseudo $R^2 = .077$. Ordinal regression parameter estimates showed that resource portfolio significantly predicted organizational performance, $\beta = .304, p \leq .05$, thus rejecting the null hypothesis that managing the firm's resource portfolio does not significantly influence organizational performance. The study concluded that managing the firm's resource portfolio significantly influences the organizational performance of pharmaceutical companies in Kenya. This led to the recommendations that leaders of pharmaceutical firms should invest in human capital to acquire suitable skill sets and be deliberate in optimizing social capital to ensure high customer satisfaction. The study also recommends managing the financial resources to exploit competitive advantage as a measure of organizational performance in pharmaceutical companies.

Keywords: Strategic Leadership, Resource portfolio, Organizational performance, pharmaceutical companies,

Introduction

While pharmaceutical echelons are excited by the many opportunities, tapping into these opportunities requires strategic leadership and skill (Birasnav & Bienstock, 2019). As

international companies rush to conquer this new frontier, being internationally competitive and world-class is an absolute requirement. Developing appropriate offerings, mobilizing human capital, and balancing various business stakeholders in different countries add complexity at all levels of leadership (Ukenna et al., 2019). Therefore, preparing the organization for the leadership challenges of tomorrow is the chief concern of CEOs in ambitious pharmaceutical organizations, and resource portfolio takes a considerable chunk in leadership planning. The resource portfolio includes financial, human, social, and organizational capital, and organizational culture (Morley et al., 2016).

Additionally, Ulrich (2018) noted that according to the firm's resource-based view (RBV), performance differences across firms could be attributed to the firm's resources and capabilities variance. Firms use tangible, such as buildings and financial resources, and intangible resources, such as human capital, social capital, and brand equity, to formulate and implement strategy. Intangible resources being rare and socially complex, and therefore difficult to imitate, are more likely to confer a competitive advantage to a firm.

Ershaghi-Hames (2019) highlighted the importance of strategic leadership as a visible and reflective model of organizational culture, especially at the middle layer of the organization. The study asserted some emergent themes and effective practices that organizations can utilize to build and frame their ethical leadership development programs and initiatives. The author concluded that rules and policies alone do not provide a sustainable framework for mitigating leadership behavior; instead, the high-performance culture can permeate the organization through shared values. According to Tan (2019) synthesis of cross-disciplinary studies on organizational culture premises that strategic leaders are the prime determinants of organizational culture. Additionally, the author believes that cultures that encourage teamwork, a clear mission, and are homogenous enhance organizational performance.

Organizational performance is evaluated in different ways in different contexts. The overall performance of an organization can be assessed using financial performance indicators, such as profitability and growth in market share, and non-financial indicators, such as customer perspectives and organizational growth and learning (Alatailat et al., 2019; Lasater et al., 2019). In private firms, organizational performance is often evaluated in terms of profit and investment over the long term. In public organizations, society's interests are generally expected to be in the foreground and are often seen from a political viewpoint (Iqbal et al., 2019).

Strategic leadership in pharmaceutical organizations comprises the top management team (TMT) headed by the Chief Executive Officer. The size of the TMT in pharmaceutical organizations varies with the size of the organizations, such that larger companies have larger TMTs. In contrast, the small pharmaceutical organizations at the other end have a relatively smaller size of top management team (Gakuya & Mbugua, 2018). The CEO top leadership management committee comprises the heads of department, which take different names, either Management Committee (ManCom) or Executive Committee (ExCo) and in most cases, are based at the head office of the pharmaceutical organizations (Mailu et al., 2018).

Pharmaceutical companies in Kenya are stratified into local manufacturing pharmaceutical companies, research and development pharmaceutical companies and generic pharmaceutical companies. The Pharmacy and Poisons Board is the pharmaceutical regulatory authority in Kenya established by law under the Pharmacy and Poisons Act, Cap 244. The Board regulates

pharmacy practice and the manufacture and trade of drugs and poisons. The key objective of the Board is to improve the quality of life of Kenyans by ensuring the quality, safety, and efficacy of pharmaceutical products and services (Pharmacy and Poisons Board, 2018).

The Problem

Oladimeji et al. (2019) found that while pharmaceutical leaders in Nigeria were enthusiastic about the opportunities, tapping into these opportunities requires strategic leadership and skills, which they needed to gain. They recommended further research to review the role of the legal environment in influencing internationalization. In their studies, both Uzman et al. (2020) and Oladimeji et al. (2019) recommended that further exploration in organizations should measure both financial and non-financial performance as they are outcomes that are influenced by the strategic leadership. Maharaj and Sunjka (2019) and Ledley et al. (2020) have noted that the uniqueness of resources could be the critical factor in converting the resources into organizational success or positive performance. Pharmaceutical companies in Kenya have been experiencing deteriorating performance due to challenges associated with a lack of strategic direction and inadequate strategy implementation (Olow et al., 2020). Operating at less-than-optimum capacity utilization naturally results in relatively higher production costs and makes it harder for local producers to compete with imports. Reports from the Kenya Pharmaceutical Board indicate that over the past three years (2017 - 2019), revenues reduced by 27%, reaching lows of 34% at the start of the year 2020. At the same time, pharmaceutical companies are facing stiff competition, employee incompetency, changing market demands, and industry regulation are problems experienced by pharmaceutical firms operating in Kenya (Kenya Pharmaceutical Association, 2020). This study, therefore, sought to establish to what extent managing a firm's resource portfolio influences organizational performance in pharmaceutical companies in Kenya.

Objective

The study was to establish the extent to which effectively managing the firm's resource portfolio influences the organizational performance of pharmaceutical companies in Kenya.

Hypothesis

H₀: Effectively managing the firm's resource portfolio does not significantly influence the organizational performance of the pharmaceutical companies in Kenya.

Literature Review

Effectively managing the firm's portfolio of resources is one of the core actions of a strategic leader. The firm's resources are financial, human, social, and organizational capital, including organizational culture (Hitt et al., (2016). Nevertheless, effective strategic leaders identify the corresponding importance of managing the other firm's resources, including managing the integration of resources. Critical is effective strategic leaders managing the firm's resource portfolio by consolidating them into capabilities, configuring the firm to accelerate using those capabilities, and selecting strategies to leverage the capabilities to create value for customers effectively (Morley et al., 2016).

Human capital is competencies the workforce exhibits in terms of knowledge and skills in an organization (Norris, 2018). Strategic leaders view the organizational workforce as a critical resource and form the building block of the core competencies through which competitive

advantages are exploited successfully. Significant investments will be obligatory for the organization to stem full competitive advantages from its human capital in the global economy. Economists contend that these investments are critical to long-term growth in modern economies that depend on knowledge, skills, and information technology.

Social capital entails internal and external relationships with the organization, combining these relations into core competencies and capabilities to ensure they create value for various stakeholders (Nwachukwu & Vu, 2020). Furthermore, Olaka et al. (2017) and Nogal-Meger (2018) pointed out that external linkages were key in attaining strategic resources critical to implementing and achieving organizational plans and goals. Similarly, it becomes clear that adopting specific capabilities or competencies becomes effective with stakeholders' involvement (Muthaa, 2019). As observed elsewhere by Metz (2020), the participation of stakeholders spreads the risks for any mission, thus providing a higher chance of achieving organizational goals using the available resources and capabilities in the organizations. Other scholars, including Maharaj and Sunjka (2019) and Ledley et al. (2020), have noted that the uniqueness of resources could be the critical factor in converting the resources into organisational success or positive performance. Additionally, Kopaneva (2019) pointed out the need for such unique resources to be protected in one way or another to stem competition from rivals while maintaining organizational performance.

A study by Inklaar and Papakonstantinou (2020) examined the importance of two firm resources: human capital and relational capital. They observed that corporate client relational/social capital was only positive when teamed with substantial human capital. Additionally, human capital positively moderated the relationship between internationalization and firm performance. Haque and Oino (2019), in their study analyzed the relationship between human capital and the organizational performance of software companies using descriptive research design with automated online questionnaires targeting 120 organizations. They found that the human capital indicators were positively associated with organizational performance. These indicators, such as training attended and teamwork practices, resulted in superstar performers, where more productivity translated to organizational performance. The study concluded that human capital indicators enhance organizational performance directly or indirectly.

In the Netherlands, Nikolopoulos and Dana (2017) found that external and internal advice-seeking are essential determinants of a firm's exploratory innovation. Top management team heterogeneity facilitates firms' abilities to act upon internal advice by combining different perspectives and developing new products and services. Interestingly, heterogeneous top management teams appeared less effective in leveraging external advice, pursuing exploratory innovation, and achieving superior firm performance.

Tsai and Hsu (2019) studied the role of internal and external relational social capital as determinants of product innovation using a sample of 142 manufacturing and service companies. It was found that internal social capital is the most relevant predictor of product innovation in relation to technological or market dimensions, as the influence of external social capital is less strong than the internal one. In terms of an interaction effect, external social capital reduces the positive impact of internal social capital on product innovation. Practitioners should pay special attention to the higher impact of internal social capital on product innovation, hence firm performance and the need to be alert to the challenges that emerge when combined with external social capital.

Izadi et al. (2017) analyzed the role of finance in corporate strategic management. The main objective of this study is to demystify finance and show how to use economic reasoning to enhance the quality of strategic decision-making. The study focused on various strategic financing decisions designed to maximize shareholder value creation and to revolve around a literature review providing answers to the questions managers frequently ask. The study provides a deeper understanding of the financial frameworks for CEOs to monitor the implementation of their strategic decisions and ensure that they create value. Finance is an integral part of making decisions.

The study demystified finance for the general manager and explained how to use economic reasoning to enhance the quality of strategic decision-making. Moreover, since most realistic decisions are complex, financial analysis will likely have limitations. Similarly, monitoring past decisions is critical to ensuring that future opportunities for shareholder value creation are noticed and adequate resources are directed to promising investments while unpromising ones are reduced in scale or scope. With a complete understanding of how to evaluate the alternatives, it is now possible for the general manager to make the value-maximizing choice.

Iqbal et al. (2019) examined the effect of firm resources on the business performance of male and female-headed firms in the case of Lao Micro, Small and Medium-sized Enterprises in Japan. The study established that financial resources were significantly linked with firm performance, irrespective of who heads it. The study further indicated that availability, accessibility, and adequacy of funds led to the achievement. The study provided empirical evidence that financial capital positively impacts firm performance. Access to financial capital is a critical resource necessary for achieving the objectives of a business, such as growth and performance, as well as the realization of development and innovation activities.

Methodology

This study adopted a positivist philosophy based on the assumption that the study aimed to analyse the relationships empirically and objectively among the variables under study as drawn from the literature review. The positivist philosophy also enabled testing results, thus adding knowledge for further research.

The sample frame for this study was derived from the units of analysis that were the top 3 senior managers closely reporting to the CEO in pharmaceutical companies. The employee list from which these senior managers were identified was obtained from company human resource records. The sampling frame for this study was derived from the 582 pharmaceutical companies in Kenya as listed by the Pharmacies and Poisons Board of Kenya using the 2021 report.

A pilot study to test the reliability and validity of the field instrument comprised 10% of the sample size of the pharmaceutical constituting 39 target respondents. The 39 respondents were excluded to avoid participating in the primary data collection. The study used SPSS version 25 to analyse all results. The statistical tests were descriptive and inferential statistics, including correlation analysis, Chi-square, one-way ANOVA, ordinal logistic regression, and parameter estimates.

Results

Prior to the main study, a pilot study was carried out on the study instrument—the pilot study aimed to identify the instrument's two aspects: reliability and validity.

Reliability

Regarding reliability, all the variable items had a Cronbach Alpha coefficient meeting the threshold ($\alpha > 0.6$), as shown in Table 1. Furthermore, the Cronbach alpha (α) value was above 0.8, classified as “very good” using the Rule of Thumb

Table 1: Reliability of Study Instrument

| Study Variables | Variable Constructs | Cronbach Alpha Coefficient (α) | Number of Items |
|--------------------|---|---|-----------------|
| Resource Portfolio | <ul style="list-style-type: none"> •Human Capital •Social Capital •Financial Capital | 0.812 | 3 |

Source: Author (2023)

Validity

The study tested validity using both composite values ($CV > .7$) and the Average Variance Extracted (AVE) approach. The AVE test aimed to attain an average value measurement of $\geq .5$. From the study results, all the variables attained the threshold ($AVE \geq .5$), as indicated in Table 2. Furthermore, the AVE values were ideally averaging over 0.7. This had the implication that the measurement scales revealed a satisfactory measurement of content validity.

Table 2: Validity of the Instrument

| Variables | Composite value | Average Variance Extracted (AVE) |
|----------------------------|-----------------|----------------------------------|
| Organizational Performance | 0.911 | 0.721 |

Source: Author (2023)

Descriptive Statistics of the Study Constructs

The results from Table 3 indicate that resource portfolio influences organizational performance through financial capital ($M=3.81$, $SD=.95$), human capital ($M=3.76$, $SD=.70$) and social capital ($M=3.76$, $SD=.70$). Furthermore, resource portfolio also influences organizational profitability through human capital ($M=3.70$, $SD=.86$), financial capital ($M=3.74$, $SD=.88$) and social capital ($M=3.65$, $SD=.82$). Additionally, the resource portfolio was found to influence customer perspective through human capital ($M=3.93$, $SD=.89$), financial capital ($M=3.80$, $SD=.80$) and social capital ($M=3.90$, $SD=.85$). Finally, resource portfolio influenced learning and growth through human capital ($M=3.75$, $SD=.93$), financial capital ($M=3.82$, $SD=.73$) and social capital ($M=3.79$, $SD=.91$)

Table 3: Mean and Standard Deviation of Resource Portfolio

| Effectively Managing Resource Portfolio | N | M | SD |
|---|----------|----------|-----------|
| My leader effectively manages the organizational human capital | 320 | 3.67 | 0.70 |
| My leader effectively manages the organizational social capital | 320 | 3.81 | 0.95 |
| My leader effectively manages the organizational financial capital | 320 | 3.76 | 0.70 |
| Influence of Resource Portfolio on Organizational Profitability | N | M | SD |
| The profitability of my organization's is influenced by my leader effectively managing the firm's human capital | 320 | 3.70 | 0.86 |
| The profitability of my organization is influenced by my leader effectively managing the firm's financial capital | 320 | 3.74 | 0.88 |
| The profitability of my organization is influenced by my leader effectively managing the firm's social capital | 320 | 3.65 | 0.82 |
| Influence of Resource Portfolio on Organizational Customer Perspective | N | M | SD |
| My organization's customer perspective is influenced by my leader effectively managing the human capital | 320 | 3.93 | 0.89 |
| My organization's customer perspective is influenced by my leader effectively managing the financial capital | 320 | 3.80 | 0.80 |
| My organization's customer perspective is influenced by my leader effectively managing the social capital | 320 | 3.90 | 0.85 |
| Influence of Resource Portfolio on Organizational Learning and Growth Perspective | N | M | SD |
| The learning and growth perspective of my organization is influenced by my leader effectively managing the firm's human capital | 320 | 3.75 | 0.93 |
| The learning and growth perspective of my organization is influenced by my leader effectively managing the firm's financial capital | 320 | 3.82 | 0.73 |
| The learning and growth perspective of my organization is influenced by my leader effectively managing the firm's social capital | 320 | 3.79 | 0.91 |

Source: Author (2023)

Correlation Analysis

Pearson's 2-tailed test was applied to test the correlation between resource portfolio and organizational performance. As indicated in Table 4, there was a significant correlation between the independent variable resource portfolio and dependent variable organizational performance $r(320) = .144, p < .05$.

Table 4: Correlation Analysis between Resource Portfolio and Performance

| | | Resource Portfolio | Performance |
|----------------------------|---------------------|--------------------|-------------|
| Resource Portfolio | Pearson Correlation | 1 | |
| | Sig. (2-tailed) | .001 | |
| | N | 320 | |
| Organizational Performance | Pearson Correlation | .144* | 1 |
| | Sig. (2-tailed) | .014 | .001 |
| | N | 320 | 320 |

Source: Author (2023)

Chi-square Analysis

A Chi-square test was used to check the strength of the association between the two variables. A chi-square test was conducted to test whether there was a significant association between resource portfolio and organizational performance. The results in Table 5 indicate a statistically significant association between resource portfolio and organizational performance $\chi^2 (411, N = 320) = 319.024, p < .05$.

Table 5: Chi-square Test on Resource Portfolio and Performance

| | Value | Df | Asymp. Sig. (2-sided) |
|------------------------------|----------------------|-----|-----------------------|
| Pearson Chi-Square | 319.024 ^a | 411 | .000 ^b |
| Likelihood Ratio | 345.474 | 411 | .998 |
| Linear-by-Linear Association | 42.332 | 1 | .000 |
| N of Valid Cases | 320 | | |

a. 390 cells (100.0%) have expected count less than 5. The minimum expected count is 01.

*Chi-square is significant at $p < .05$ level

Source: Author (2023)

Regression Model using ANOVA.

A one-way ANOVA test was conducted to determine any significant differences between the independent and demographic variables. The demographics included gender, age bracket, position in the organization, work experience in the pharmaceutical company and the highest level of education. Results displayed in Table 6 indicate that significant differences between the means of resource portfolio and demographic variables occurred for the position in the organization, $F(4, 316) = 2.842, p \leq .05$ and Highest academic level in the pharmaceutical company, $F(4, 316) = 0.789, p \leq .05$.

Table 6: One-Way ANOVA for Resource Portfolio and Demographic Variables

| | | Sum of Squares | df | Mean Square | F | Sig. |
|--------------------------|----------------|----------------|-----|-------------|-------|-------|
| Gender | Between Groups | 4.28 | 4 | 1.07 | 1.713 | 0.234 |
| | Within Groups | 83.204 | 316 | 0.263 | | |
| | Total | 87.484 | 320 | | | |
| Age Bracket | Between Groups | 11.128 | 4 | 2.782 | 2.389 | 0.071 |
| | Within Groups | 217.456 | 316 | 0.688 | | |
| | Total | 228.584 | 320 | | | |
| Position in Organization | Between Groups | 123.624 | 4 | 30.906 | 2.842 | 0.021 |
| | Within Groups | 436.904 | 316 | 1.382 | | |
| | Total | 560.528 | 320 | | | |
| Work Experience | Between Groups | 28.895 | 4 | 7.223 | 1.902 | 0.061 |
| | Within Groups | 292.834 | 316 | 0.926 | | |
| | Total | 321.729 | 320 | | | |
| Highest Academics | Between Groups | 62.109 | 4 | 15.527 | 0.789 | 0.001 |
| | Within Groups | 798.234 | 316 | 2.526 | | |
| | Total | 68.576 | 320 | | | |

Source: Author (2023)

Pseudo R-Square of Resource Portfolio and Performance

Pseudo R-square provided the coefficient of determination based on the log-likelihood for the regression model, and this was compared to the log-likelihood of the baseline model. Results as presented in Table 7 showing the Pseudo R-square value for resource portfolio using the Nagelkerke R-Square, $R^2 = .077$, implied that resource portfolio explained a variation of 7.7% in organizational performance.

Table 7: Pseudo R-Square for Resource Portfolio on Performance

| Link Function | Logit |
|---------------|-------|
| Cox and Snell | .071 |
| Nagelkerke* | .077 |
| McFadden | .068 |

. *Link function: Logit

Source: Author (2023)

Parameter Estimates of Firm’s Resource Portfolio on Performance

The model for the influence of firm’s resource portfolio, X, on organizational performance, Y, is given presented as:

$$\text{logit}[P(Y \leq j)] = \alpha_j - \beta X$$

Results presented in Table 8 indicate a Log Likelihood of 4.221 showing that the model is fit and predicts influence of the independent variable (firm’s resource portfolio) on the dependent variable (organizational performance). Bayesian Information Criterion (BIC) means that other factors held constant, firm’s resource portfolio construct as an independent variable is responsible for 7.4% positive change in organizational performance of the various pharmaceutical firms in Kenya. Conclusively, based on the chi-square scores above critical chi-square value at four (4) degree of freedom 3.841 (6.134 for Resource Portfolio) the study states that resource portfolio influences organizational performance.

Table 8: Parameter Estimates for Resource Portfolio on Organizational Performance

| (a) Goodness of Fit^a | | | | | | | | |
|---|-----------------|----|------|------|------------|-------------------------------------|--------------|-----------------|
| | | | | | | | Value | |
| Log Likelihood ^b | | | | | | | 4.221 | |
| Akaike's Information Criterion (AIC) | | | | | | | 11.455 | |
| Finite Sample Corrected AIC (AICC) | | | | | | | 11.507 | |
| Bayesian Information Criterion (BIC) | | | | | | | 7.402 | |
| Consistent AIC (CAIC) | | | | | | | 20.348 | |
| (b) Hypothesis Testing (Wald Chi-square) | | | | | | | | |
| | Wald Chi-Square | df | Sig. | B | Std. Error | 95 Percent Wald Confidence Interval | | Wald Chi-Square |
| | | | | | | Lower | Upper | |
| (Intercept) | 13.128 | 4 | .000 | 2.89 | .7982 | 4.457 | 1.328 | 13.12 |
| Resource Portfolio | 6.134 | 4 | .005 | .304 | .6671 | .834 | 1.322 | 6.134 |

Source: Author (2023)

Conclusions

The study established correlation results showing that a firm’s resource portfolio had a positive and significant relationship with organizational performance, $r(320) = .144, p < .05$. The Chi-square test showed a statistically significant association between a firm’s resource portfolio and organizational performance, $\chi^2(411, N = 320) = 319.024, p < .05$. The one-way ANOVA results showed that there were significant differences between the means of resource portfolio and demographic variables for the position in the organization, $F(4, 316) = 2.842, p \leq .05$ and highest academic level in the pharmaceutical company, $F(4, 316) = 0.789, p \leq .05$. Ordinal logistic regression results determined that regression model for firm’s resource portfolio fitted the data well $(4, N=316) = 19.326, p = .001, p < .05$. Goodness-of-fit revealed non-significant

results for Pearson Chi-square statistic [$\chi^2(4, N = 316) = 8.281, p = .079, p > .05$]. Ordinal logistic regression (Nagelkerke, Pseudo R-square) for resource portfolio determined that a variation of 7.7% in organizational performance was explained by resource portfolio, $R^2 = .077$. In addition, ordinal logistic regression parameter estimates showed that a firm's resource portfolio positively and significantly predicted organizational performance ($\beta = 1.322, p \leq .05$). This led to the null hypothesis being rejected and adopting the alternative hypothesis that a firm's resource portfolio has a significant influence on organizational performance of pharmaceutical firms in Kenya.

Discussion of Results

The study's main objective was to establish to what extent managing a firm's resource portfolio influenced organizational performance in pharmaceutical companies in Kenya. This study was guided by the following hypothesis.

H₀: Effectively managing the firm's resource portfolio does not significantly influence the organizational performance of the pharmaceutical companies in Kenya.

The results established that the firm's resource portfolio influences the performance of pharmaceutical companies. The results are congruent with a previous study by Buzduga (2020), who surveyed 107 industrial firms in Latvia. Correlation analysis results determined the significant influence of resource portfolio on organizational performance, $r(107) = .279, p \leq .05$. In yet another study in Sri Lanka by Dasanayaka et al. (2020) targeting 64 small-scale enterprises, correlation analysis results indicating a high association between resource portfolio of the firms and customer perspective of SMEs, $r(64) = .345, p \leq .05$.

Whereas correlation analysis results indicated that the regression model for the firm's resource portfolio fitted the data well ($4, N=316$) = 19.326, $p = .001, p < .05$, other studies have found no such significance. A study of contrary opinion includes that of Gerasimov et al. (2019), where the results of correlation analysis showed a non-significant relationship between human capital and organizational performance ($6, N=72$) = 33.215, $p = .071, p > .05$. Instead, the scholars attribute such performance to other factors including the disclosure of information. Furthermore, Gerasimov et al. (2019) found that disclosure of information by human resource persons had a negative influence on organizational performance.

Additionally, Chi-square test results showed a statistically significant association between a firm's resource portfolio and organizational performance. These findings are similar to a previous study in China which sought to establish the influence of human capital on organization performance in 93 medium-scale manufacturing firms in Shanghai industrial parks (Salim et al., 2017). The chi-square results determined a strong influence of human capital on the performance of the firms, $\chi^2(356, N = 93) = 271.033, p \leq .05$. More evidence from the study by Pradhan et al. (2020) showed that human resource indicators, such as training attended and teamwork practices, tended to result in superstar performers, where more productivity was translated to organizational performance. Additionally, Mineev et al. (2018), in their study through chi-square results, demonstrated a significant influence of human capital on organizational performance $\chi^2(172, N = 105) = 221.021, p \leq .05$. This showed that training leads to employees acquiring knowledge and skills which when utilized leads to improved employee performance which translates to organizational performance.

On the contrary, Sözbilir (2018), questioning the role of resource portfolio in performance, had findings whose chi-square results showed no significance, $\chi^2 (208, N = 36) = 120.09, p \geq .05$. This indicated that the emphasis on resource portfolio alone could not be attributed to the organization's performance, arguing that an organization could have an excellent resource portfolio but still perform poorly if the resources are not efficiently optimized.

The one-way ANOVA results revealed that there were significant differences between the means of resource portfolio and demographic variables for the position in the organization, $F (4, 316) = 2.842, p \leq .05$ and highest academic level in the pharmaceutical companies, $F (4, 316) = 0.789, p \leq .05$. The study findings reflected similar findings by Rahman et al., (2019) whose results indicated that high academic levels were associated with the high positions in most firms in the pharmaceutical companies in Pakistan. This was evidence that the collective improvement of individual human resources has positive feedback on human knowledge intensity. Additionally, Don and Nguyen (2020), investigating manufacturing firms in Vietnam, found one-way ANOVA results that demonstrated significant differences in means of academic qualification and length of operation for the firms, $F (2, 83) = 1.321, p \leq .05$. This further implied that when organizations engaged in intellectual competition, they achieved improved performance.

On the contrary, Nikolopoulos and Dana (2017) had One-way ANOVA results indicating no relationship between the means for groups of independent variables and the dependent variable in the resource portfolio. In their study, the scholars found no differences in the means of demographic aspects and study variables, implying that there was no influence of resource portfolio on performance in the Greek pharmaceutical small-scale companies.

The ordinal logistic regression (Nagelkerke, Pseudo R-square) for resource portfolio determined that a variation of 7.7% in organizational performance was explained by resource portfolio, $R^2 = .077$. This finding was in line with other results from previous studies by Salim et al. (2017), who established ordinal logistic regression (Nagelkerke, Pseudo R-square) for resource portfolio and determined a variation of 9.1% in organizational performance, $R^2 = .091$. Furthermore, Maharaj et al. (2019) supported the findings through their study in which resource portfolio played a vital role in the performance of organizations, pointing out that when an organization diversified its resource portfolio, it self-sustains through optimized conversion of those resources to useful output.

However, other studies whose results were contrary to the current study results include Ahenkora and Boadu-Ayebofo (2018), who had ordinal logistic regression (Nagelkerke Pseudo R-square) results revealing that only 1.1 percent of variations in firm performance was caused by resource portfolio, $R^2 = .0011$. Such divergent findings showed that a firm's resource portfolio negatively and insignificantly predicted organizational performance, contrary to the current study, which established a strong relationship between the resource portfolio and performance. Specifically, Ahenkora and Boadu-Ayebofo (2018) observed that heterogeneous top management teams appeared less effective in leveraging external social capital and instead pursued personal interests at the expense of organizational goals leading to poor organizational performance.

Recommendations and Areas for Further Study

The study recommends that the leadership of pharmaceutical firms should invest in human capital to acquire suitable skill set as well-being deliberate on optimizing social capital to optimize customer satisfaction. The study also recommends management of the financial

resources to exploit competitive advantage as a measure of organizational performance. Additionally, the study suggests research in a different context, specifically in the service or manufacturing industries, to test how a firm resource portfolio affects performance.

References

- Ahenkora, K., & Boadu-Ayebofo, B. A. (2018). Strategic contributions of internal and budget controls to church financial performance. *Journal of Innovations and Sustainability*, 3(2), 31-63.
- Alatailat, M., Elrehail, H., & Emeagwali, O. L. (2019). High performance work practices, organizational performance, and strategic thinking. *International Journal of Organizational Analysis*, 48(3), 227-244.
- Birasnav, M., & Bienstock, J. (2019). Supply chain integration, advanced manufacturing technology, and strategic leadership: An empirical study. *Computers & Industrial Engineering*, 1(3), 142-157.
- Buzduga, I. (2020). Performance Measurement Using Performance Indicators within the Company. *The USV Annals of Economics and Public Administration*, 20(1 (31)).
- Cooper, R., & Schindler, D. (2017). *Social science research methods*. Sage Publications.
- Dasanayaka, S. W., Rangajeewa, & Batena, W. (2020). Identification of factors for the success of the Sri Lankan independent inventors. *International Journal of Business and Globalisation*, 25(2), 241-263.
- Don, B., & Nguyen, N. (2020). The links between proactive environmental strategy, competitive advantages and firm performance: An empirical study in Vietnam. *Sustainability*, 12(12), 4962
- Ershaghi-Hames, M. (2019). Global Engagement by leaders is a moral imperative: building the next generation of ethical corporate cultures. *Next-Generation Ethics: Engineering a Better Society*, 3(4), 194-214.
- Gakuya, R. W., & Mbugua, D. (2018). Effects of cost leadership strategy on customer loyalty among pharmaceutical companies in Nairobi County, Kenya. *European Journal of Social Sciences Studies*, 2(2), 34-56
- Gerasimov, V. O., Sharafutdinov, R. I., & Vasilyeva, A. G. (2019). Control in the human capital management system in the strategy of innovative development of a region. *Entrepreneurship and Sustainability Issues*, 7(2), 1074-1088
- Haque, A. U., & Oino, I. (2019). Managerial challenges for software houses related to work, worker and workplace: Stress reduction and sustenance of human capital. *Polish Journal of Management Studies*, 7(2), 1074-1088.
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2016). *Strategic management: Concepts and cases: Competitiveness and globalization*. Cengage Learning
- Inklaar, R., & Papakonstantinou, M. (2020). Vintage effects in human capital: Europe versus the United States. *Review of Income and Wealth*, 66(1), 1-25.

- Iqbal, A., Latif, F., Marimon, F., Sahibzada, U. F., & Hussain, S. (2019). From knowledge management to organizational performance. *Journal of Enterprise Information Management*, 17(1), 325-329.
- Izadi, R., Khadivi, A. M., Mehrabanfar, E., & Shavrini, S. K. (2017). The Role of Finance in Corporate Strategy. *European Online Journal of Natural and Social Sciences: Proceedings*, 4(1)324-332.
- Kopaneva, I. M. (2019). Left in the dust: Employee constructions of mission and vision ownership. *International Journal of Business Communication*, 56(1), 122-145.
- Lasater, K. B., Jarrín, O. F., Aiken, L. H., McHugh, M. D., Sloane, D. M., & Smith, H. L. (2019). A Methodology for Studying Organizational Performance. *Medical care*, 57(9), 742-749.
- Ledley, F. D., McCoy, S. S., & Cleary, E. G. (2020). Profitability of large pharmaceutical companies compared with other large public companies. *Jama*, 323(9), 834-843.
- Ma, S., & Seidl, D. (2018). New CEOs and their collaborators: Divergence and convergence between the strategic leadership constellation and the top management team. *Strategic Management Journal*, 39(3), 606-638
- Maharaj, I., & Sunjka, B. P. (2019). A strategic framework for start-up medical device manufacturers in South Africa. *South African Journal of Industrial Engineering*, 30(3), 63-76.
- Mailu, R. N., Ntale, J. F., & Ngui, T. K. (2018). Strategy implementation and organizational performance in the pharmaceutical industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(2), 33-47.
- Metz, S. (2020). The future of strategic leadership. *Parameters*, 50(2), 61-67.
- Mineev, V. V., Viktoruk, E. N., Shtumpf, S. P., Rakhinskiy, D. V., & Chernyaeva, A. S. (2018). Pharmaceutical Ethics in the Frame of Bioethical Knowledge: Challenges for Development and the Potential of Foucault's Key Ideas. *Journal of Pharmaceutical Sciences and Research*, 10(11), 2948-2951.
- Morley, M. J., Heraty, N., & Michailova, S. (Eds.). (2016). *Managing human resources in Central and Eastern Europe*. London: Routledge.
- Muthaa, G. M. (2019). Effect of strategic timelines on the performance of technical training institutions in Meru County, Kenya. *Asian Journal of Education and e-Learning*, 7(1), 55-78.
- Nikolopoulos, K. P., & Dana, L. P. (2017). Social capital formation in EU ICT SMEs: The role played by the mobility of knowledge workers. *European Management Review*, 14(4), 409-422
- Nogal-Meger, P. (2018). The quality of business legal environment and its relation with business freedom. *International Journal of Contemporary Management*, 17(2), 111-136.
- Norris, S. E. (2018). The strategic leadership role in organizations. *Strategic Leadership*, 125-141.

- Nwachukwu, C., & Vu, H. M. (2020). Strategic flexibility, strategic leadership and business sustainability nexus. *International Journal of Business Environment*, 11(2), 125-143.
- Oladimeji, M. S., Abosede, A. J., & Eze, B. U. (2019). Corporate entrepreneurship and service firms' performance in Nigeria. *Economic Review: Journal of Economics & Business*, 17(1), 3-15.
- Olaka, M. H., Lewa, P., & Kiriri, P. (2017). Strategic leadership and strategy implementation in commercial banks in Kenya. *Journal of Strategic Management*, 2(1), 70-91.
- Pharmacy and Poisons Board (2018). Retrieved on 11.11.2022 from <https://pharmacyboardkenya.org/downloads>.
- Pradhan, R. P., Arvin, M. B., Nair, M., & Bennett, S. E. (2020). The dynamics among entrepreneurship, innovation, and economic growth in the Eurozone countries. *Journal of Policy Modeling*. 92(4), 65-68.
- Rehman, S. U., Mohamed, R., & Ayoup, H. (2019). The mediating role of organizational capabilities between organizational performance and its determinants. *Journal of Global Entrepreneurship Research*, 9(1), 30.
- Salim, R., Yao, Y., & Chen, G. S. (2017). Does human capital matter for competitive advantage in China. *Energy Economics*, 67, 49-59.
- Sözbilir, F. (2018). The interaction between social capital, creativity, and efficiency in organizations. *Thinking Skills and Creativity*, 27, 92-100.
- Tan, B. S. (2019). In search of the link between organizational culture and performance: A review from the conclusion validity perspective. *Leadership & Organization Development Journal*, 40(3), 356-368.
- Tsai, F. S., & Hsu, I. C. (2019). The effects of social capital on knowledge heterogeneity. *Management decision*. 92(4), 65-68.
- Ukenna, S., Ijeoma, N., Anionwu, C., & Olise, M. C. (2018). Effect of investment in human capital development on organizational performance: empirical examination of the perception of small business owners in Nigeria. *European Journal of Economics, Finance and Administrative Sciences*. 2(3) 93-107.
- Ulrich, P. (2018). Managing natural resources—are family firms different from other firms? *Corporate Governance and Sustainability Review*, 1(2), 43-58.
- Uzman, N., Williams, A. E., & Bates, I. (2020). Implementing FIP's global pharmaceutical education transformation vision in Sub-Saharan African Countries. *Research in Social and Administrative Pharmacy*, 16(8), 1131-1135.