

Analytic Investigation of Mediating Mechanisms in Human Resource Management Practices on Kenyan Public Universities' Organizational Outcomes

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ABSTRACT

Strategic HRM research has shown that the use of systems of HR practices intended to enhance employees' knowledge, skills, abilities, motivation, and opportunity to contribute, is associated with positive outcomes such as greater commitment, lower turnover, higher productivity and quality, better service performance, enhanced safety performance, and better financial performance. Despite the robust evidence for the positive relationships between HRM and various organizational outcomes, important issues remain regarding the mechanisms through which HRM is associated with different organizational outcomes. This study develops an integrative model of the mechanisms mediating between HRM and Kenyan public universities' organizational outcomes through a meta-analytic approach. It draws on the behavioral perspective on HRM, human capital theory, and the resource-based view of an entity, and aims to extend and refine existing HRM-organizational outcomes models by exploring multiple mediating paths and differentiating among the effects of sub-dimensions of HR systems.

The HR dimensions had significant and positive effects on human capital. The results of Z-tests show that the regression coefficient of skill-enhancing HR practices was significantly larger than the coefficients of motivation-enhancing and opportunity-enhancing HR practices. Moreover, the analyses of relative weights indicate that skill enhancing HR practices explained the largest percentage of variance in human capital, followed by motivation-enhancing and opportunity-enhancing HR practices.

Similarly, significantly positive effects of the three HR dimensions on employee motivation were established. Consistently with prediction, the influences of motivation-enhancing and opportunity-enhancing HR practices were significantly stronger than that of skill enhancing HR practices. Motivation-enhancing and opportunity-enhancing HR practices respectively explained the variance of employee motivation, whereas skill-enhancing HR practices were as well explained. Mediation results were found that confirmed the prediction that the three HR dimensions have both direct effects and indirect effects through human capital, employee motivation, voluntary turnover, and operational outcomes on financial outcomes.

Keywords: human capital theory, organizational outcomes, higher education, motivation-enhancing HR, opportunity-enhancing HR

INTRODUCTION

Research on strategic human resource management (HRM) has examined why and how organizations achieve their goals through human resource (HR) practices. Although traditional HRM research has focused on the impact of individual HR practices, the strategic perspective on HRM research emphasizes bundles of HR practices, often referred to as high performance work systems (HPWS), high-involvement work systems, and high-commitment work systems, in examinations of the effects of HRM on employee and organizational outcomes¹. A burgeoning body of research on strategic HRM has shown that the use of systems of HR practices intended to enhance employees' knowledge, skills and abilities, motivation, and opportunity to contribute is

associated with positive outcomes such as greater commitment², lower turnover³, higher productivity and quality⁴, better service performance⁵, enhanced safety performance, and better financial performance⁶.

Handel⁷ used the socio-technical systems theory and developed a set of instruments to study universities from an organizational perspective. Among the key variables of the model used included perceptions of actual and ideal primary tasks and roles, sentience (trust and loyalty), participant satisfaction, as well as tangible and intangible technology. The scholar established that individuals with greater investment in the university (time, qualification, rank) perceive their role as contributing positively towards the realization of organizational effectiveness. Howard⁸ investigated perceived organizational effectiveness using the “Index Effectiveness of the Leader Behaviour Description Questionnaire”. It was established that perceived leader behaviours of structure, communication skills, and consideration explained the statistically significant proportion of the variance in perceived organizational effectiveness. Furthermore, he established that there were leader behaviours within the education organization setting that could be developed by educational line officers, which in turn could be utilized to enhance the realization of perceived organizational effectiveness and student achievement.

However, the study by Monarco⁹ noted that to determine the perceived organizational effectiveness of an educational organization, the organizational characteristics of leadership, motivation, communication, interaction-influence, decision making and goal setting could be useful to provide a guide. Furthermore, goal setting, amount and quality of participation of members of the educational organization, and effective communication have a bearing on how effectively an educational organization realizes its objectives and attains organizational effectiveness. Feuer¹⁰ sought to establish a framework for planning and evaluation of policy in universities. The scholar developed a model that could be useful for the efficient management of the universities in the face of their objectives, preferred individual outcomes, organizational costs and other organizational challenges.

Higher education has been beset by crisis: crisis of public confidence; questions of continuing relevance; doubts about continuing and higher education; and real financial crisis. In response, the governments have responded with enabling legislation and setting up administrative boards and regulatory agencies to devote increasing attention to the management of higher education. Part of this response has been a heightened interest in formal planning-programming-budgeting-systems (PPBS). PPBS as a tool, or an approach, is significantly shaped by the internal and external political realities of higher education. By its very nature, PPBS is a political instrument, and the institutional and political environment should always be borne in mind whenever it is desirable to be utilized. Many people are concerned about the large-scale investment in education made by most countries, especially in the Third World, where the resources are scarce. The great faith shown in such investment in the 1950s and 1960s as the answer to economic and social problems has now given way to doubt, and even to suggestions that such resources would rather be spent on other priority sectors¹¹.

Concern has been raised about the increasing costs of education which has led to attempts to make education more efficient. The emphasis, therefore, is on quality rather than quantity in education and on relevance. Educated unemployment, rural-urban drift, wastage and the brain drain from poorer to richer countries are all seen as symptoms of the failure of education policies. The challenge remains how to get more and better education from the resources available. Lorion¹² noted that faculty members desired more involvement in areas of governance of personnel matters, financial affairs and capital investments. Indeed, it was the Government of Kenya's desire to see to it that public universities were managed on democratic principles¹³.

The discipline of financial management is concerned with that managerial activity that deals with the planning and controlling of the institution's financial resources. Financial resources play an extremely crucial role in the continued existence of an educational institution. It serves as the circulatory system of an enterprise. It makes possible the needed co-operation between diverse activities.

Further, it had been noted that:

During the past decade or so, Kenya's ...university system has experienced very high rates of growth ... This

growth of universities... is largely a product of the insatiable demand for higher and higher levels of education... [And yet] There has been little or no research documenting issues in university [management] ... (Sifuna, 1998:176)¹⁴.

Despite the robust evidence for the positive relationships between HRM and various organizational outcomes¹⁵, important issues remain regarding the mechanisms through which HRM is associated with different university organizational outcomes. First, the theoretical logic underlying the mechanisms linking HRM and organizational outcomes remains fragmented^{16,17}. Specifically, some researchers have adopted a behavioral perspective to suggest that HR practices affect organizational outcomes by influencing employee role behaviors; if employees act in ways that are consistent with organizational goals, performance should improve. Other researchers have adopted more of a human capital and resource-based perspective, focusing on the potential contributions of employees' competencies, that is, their knowledge, skills, and abilities. Interestingly, although employees contribute through both their competencies and their actions, researchers have typically focused on one perspective to understand how HR systems impact organizational outcomes¹⁸. Considering multiple perspectives simultaneously provides a broader and more complete picture of the relationship between HRM and organizational outcomes.

Second, although prior research has demonstrated the mechanism through which HRM relates to some organizational outcomes, it remained unclear as to how HRM related to different organizational outcomes that ranged from very proximal (HR outcomes) to more distal (that is, financial outcomes). This lack of integration was problematic given the different perspectives adopted in literature, perspectives that highlighted the importance of different but potentially related outcomes. Exploring the possible paths between HRM and financial outcomes was likely to provide a more integrative model of how HR systems operate to impact a multitude of related and important outcomes^{19; 20;21}.

Third, it was assumed in existing research that the components of HR systems had identical impacts on outcomes. For example, when scholars adopt an additive approach to measure HR systems, each component of the system is treated as if it exerted an equal influence on the outcomes under investigation. Although this is a possible reflection of how HR systems operate, there have recently emerged challenges to this assumption and it has been argued that different sets of HR practices may impact the same outcomes in a heterogeneous way^{22; 23; 24; 25}. As these studies have suggested, it is important to explore the differential effects of the different components of HR systems.

Given these issues, the primary objective of this study was to develop an integrative model of the mechanisms mediating between HRM and Kenyan public university organizational outcomes through a meta-analytic approach. Drawing on the behavioral perspective on HRM, human capital theory, and the resource-based view of the organization, the study aimed to extend and refine existing HRM-organizational outcomes models by exploring multiple mediating paths and differentiating among the effects of sub-dimensions of HR systems.

Hypotheses Of The Study

H₀ 1a: Skill-enhancing HR practices are positively related to human capital.

H₀ 1b: Motivation-enhancing HR practices are positively related to human capital.

H₀ 1c: Opportunity-enhancing HR practices are positively related to human capital.

H₀ 2a: Skill-enhancing HR practices are more positively related to human capital than motivation-enhancing HR practices.

H₀ 2b: Skill-enhancing HR practices are more positively related to human capital than opportunity-enhancing HR practices.

H₀ 3a: Skill-enhancing HR practices are positively related to employee motivation.

H₀ 3b: Motivation-enhancing HR practices are positively related to employee motivation.

H₀ 3c: Opportunity-enhancing HR practices are positively related to employee motivation.

H₀ 4a: Skill-enhancing HR practices are less positively related to employee motivation than motivation-enhancing HR practices.

H₀ 4b: Skill-enhancing HR practices are less positively related to employee motivation than opportunity-enhancing HR practices.

H₀ 5a: Human capital mediates the negative relationships between the three dimensions of HR systems and voluntary turnover.

H₀ 5b: Employee motivation mediates the negative relationships between the three dimensions of HR systems and voluntary turnover.

H₀ 6a: Human capital mediates the positive relationships between the three dimensions of HR systems and operational outcomes.

H₀ 6b: Employee motivation mediates the positive relationships between the three dimensions of HR systems and operational outcomes.

H₀ 7: Human capital, employee motivation, voluntary turnover, and operational outcomes partially mediate the positive relationships between the three dimensions of HR systems and financial outcomes.

Relationships Between Human Resource Management and Organizational Outcomes

Understanding the relationship between HRM and organizational outcomes is one of the longstanding goals of macro HRM research. Indeed, this relationship has been one of the essential pursuits of strategic HRM research. This stream of research has several key components. First, organizational outcomes are viewed as multidimensional. Drawing from this basis²⁶, researchers in strategic HRM have categorized organizational outcomes into three primary groups related to HRM: HR outcomes, operational outcomes, and financial outcomes. *HR outcomes* refer to those most directly related to HRM in an organization, such as employee skills and abilities, employee attitudes and behaviors, and turnover. *Operational outcomes* are those related to the goals of an organizational operation, including productivity, product quality, quality of service, and innovation. *Financial outcomes* reflect the fulfillment of the economic goals of organizations. Typical financial outcomes include sales growth, return on invested capital, and return on assets. In this study, we use “organizational outcomes” to refer to all three categories of outcomes at the organizational level.

Second, strategic HRM research suggests that different types of outcomes may not necessarily have equivalent relationships with HR practices^{27; 28}. Moreover, it is commonly asserted that HRM may influence the three types of organizational outcomes in sequence. For example, HR practices are expected to first influence HR outcomes (for instance, employee skills and motivation), which are proximal and the least likely to be contaminated by factors beyond HR practices. HR outcomes, in turn, may mediate the influence of HR practices on productivity, quality, service, safety, innovation, and other operational outcomes, which further affect financial outcomes.

Although existing HR research often implies that HR outcomes serve as a key mediator between HR systems and key outcomes, the specific natures of models of this mediation depend on the theoretical perspective researchers have adopted when examining this relationship. On the one hand, several researchers have adopted the behavioral perspective of HRM²⁹. According to this perspective, organizations do not perform themselves but instead use HR practices to encourage productive behaviors from employees and thus to achieve desirable operational and financial objectives. If an organization requires efficient employees, for example, its chosen HR practices and their effectiveness would likely differ from those of an organization that requires employees to be cooperative, to focus on service, or to engage in some other critical role behavior. The effectiveness of HR

practices is realized when employees act in ways that are needed for implementing strategies and achieving various business objectives.

On the other hand, some macro HRM researchers have focused less on the behaviors of employees and more on their competencies within organizations. Researchers taking on this perspective often invoke human capital theory and the resource-based view of the firm. Human capital theory emphasizes that human capital, the composition of employee skills, knowledge, and abilities, is a central driver of organizational performance when the return on investment in human capital exceeds labor costs^{30;31;32}. The resource-based view provides additional insights as to why human capital can help firms to outpace competitors and proposes that organizations obtain a competitive advantage from resources that are rare, valuable, inimitable, and non-substitutable^{33;34}. Researchers have argued that human capital, especially high-quality and/or organization-specific human capital, has the potential to serve as a source of competitive advantage³⁵. Organizations may use HR practices to create and maintain valuable human capital, including both generic and organization-specific human capital, which in turn drives high operational and financial performance³⁶.

Although the behavioral perspective of HRM, human capital theory, and the resource-based view of the firm let researchers adopt different angles to look at the relationships between HR practices and more distal outcomes, under all three perspectives HR outcomes are viewed as a critical path from HRM to operational and financial outcomes. Even with this agreement, however, researchers have not successfully combined multiple approaches to delineate an overarching picture of how this path unfolds. For example, most of the extant empirical research has examined the influence of HR systems on operational or financial performance either through motivation-related variables^{37;38;39;40;41} or through human capital variables^{42;43;44}. Insights into each type of variable are important yet insufficient to fully capture the process linking HRM to outcomes. Thus, research is needed to explore how HRM can help organizations achieve financial goals through multiple paths.

The Three Dimensions of HR

Scholars have recently argued that although employees are exposed to HR systems rather than individual practices, the parts of these systems are not necessarily equivalent in their impact. Much as most research has portrayed an HR system as an additive index of a set of individual HR practices there are reasons to believe, however, that the highly varied set of HR practices can be categorized into several subdimensions. Indeed, dividing HR systems into subdimensions is not new in strategic HRM research. For example, drawing on an employee-organization relationship framework⁴⁵, researchers have argued that HR practices may be categorized as falling into HRM inducement and investment practices, and HRM expectation enhancing practices^{46;47}. The first two types are designed to improve employees' expected outcomes, whereas the third type reflects organizations' expectations about employees' contributions.

Taking a different approach, some researchers have drawn upon the ability-motivation-opportunity (AMO) model of HRM and suggested that employee performance is a function of three essential components: ability, motivation, and opportunity to perform. Extending this logic, HR systems designed to maximize employee performance can be viewed as a composition of three dimensions intended to enhance employee skills, motivation, and opportunity to contribute, respectively^{48;49;50;51;52}. Recently, several empirical studies have adopted and validated this conceptual framework^{53;54}.

In keeping with these studies, suggested that it might be fruitful to conceptualize HR practices as falling into one of three primary dimensions: skill-enhancing HR practices, motivation-enhancing HR practices, and opportunity-enhancing HR practices. *Skill-enhancing HR practices* are designed to ensure appropriately skilled employees; they include comprehensive recruitment, rigorous selection, and extensive training. *Motivation-enhancing HR practices* are implemented to enhance employee motivation. Typical ones include developmental performance management, competitive compensation, incentives and rewards, extensive benefits, promotion and career development, and job security. *Opportunity-enhancing HR practices* are designed to empower employees to use their skills and motivation to achieve organizational objectives. Practices such as flexible job design, work teams, employee involvement, and information sharing are generally used to offer these opportunities. The use

of the three dimensions of HR systems instead of a unidimensional or two-dimensional framework is based on an examination of differential effects of the three dimensions of HR systems on different types of HR outcomes.

Linking HR Dimensions to Multiple Outcomes

According to the ability-motivation-opportunity model of HRM, HR outcomes can conceptually be divided into human capital, motivation, and opportunity to contribute, and human capital and employee motivation are two of the most critical mediating factors that have been examined in literature. In line with the literature, we focus on the mediating roles of human capital and employee motivation. As previous research suggests, human capital can be viewed as a composition of employees' knowledge, skills, and abilities⁵⁵, and employee motivation refers to the direction, intensity, and duration of employees' effort⁵⁶, as manifested by positive work attitudes (collective job satisfaction, commitment, perceived organizational support) and work behavior (organizational citizenship behavior).

Although it is anticipated that all three HR dimensions are positively related to both human capital and employee motivation, we also anticipate that the three HR dimensions may play different roles in building human capital and enhancing employee motivation. We expect that, compared with motivation-enhancing and opportunity-enhancing HR practices, skill-enhancing HR practices will likely have a stronger impact on human capital and a weaker impact on employee motivation. According to the ability-motivation-opportunity framework, skill-enhancing HR practices can directly help to optimize the levels or types of employees' skills and abilities. For example, recruitment and selection practices are intended to ensure that employees have the skills needed for task performance, and training and development may further provide employees with organization-specific skills with which to perform their work. Indeed, organizations can enhance the skills of their workforces both by hiring high-quality individuals and by improving the level of skills in their current workforces⁵⁷. Relatedly, prior research shows that the use of comprehensive selection and training practices fostered employees' collective human capital⁵⁸. Furthermore, research suggests that practices such as competitive compensation, extensive benefits, and job security may help attract capable employees and retain them in organizations, and practices such as work teams, employee involvement, and flexible job design may provide employees with opportunities to share knowledge and to learn new skills. However, the relationships between the other two HR dimensions and human capital are seen as less direct. Research has shown that practices from these two dimensions were less positively related to human capital than skill-enhancing HR practices.

It was also posited that the three dimensions of HR systems are positively related to employee motivation to different degrees. First, investment in all three HR dimensions generally indicates that organizations value and support employees' contributions. According to social exchange theory⁵⁹ and the norm of reciprocity⁵⁴, employees who perceive an organization's actions toward them as beneficial may feel obligated to reciprocate and be motivated to exert more effort at work. More specifically, motivation-enhancing HR practices (performance-based compensation, incentives and benefit, promotion opportunities, and job security) are more likely to provide employees with extrinsic motivation that links their work efforts to external rewards. Practices such as work teams, employee involvement, and flexible job design help to generate employees' intrinsic motivation, which encourages them to seek out challenges at work⁶⁰. In addition, skill-enhancing HR practices can enhance employees' skills and abilities, which may help career development and induce promotion opportunities in their organizations⁶¹. However, the effect of skill-enhancing HR practices on employee motivation is relatively indirect and likely to be contingent on the practices in the other two HR dimensions. For example, even though training can improve employees' skills at work, the increased skills may not necessarily lead to promotion in their organization. Therefore, we expect all three HR dimensions to be positively associated with employee motivation and, compared with the other two dimensions, skill-enhancing HR practices are less positively related to employee motivation. Recent empirical research that examined the influence of three HR dimensions on employee affective commitment has also supported this reasoning.

In addition to the direct effects of the three HR dimensions on human capital and employee motivation, it was proposed that human capital and employee motivation mediate the relationships between the three HR dimensions and more distal outcomes related to voluntary turnover (voluntary organizational exit), operational outcomes, and subsequent financial outcomes. Several researchers have viewed voluntary turnover as a critical

intermediate outcome that is distinct from human capital and employee motivation^{62;58}. Research has consistently demonstrated that HR practices designed to enhance employee skills and motivation are significantly and negatively associated with voluntary turnover⁶⁴. Some researchers attribute the negative relationships to the emotional bond between employees and organizations formed by HR practices. In other words, because HR practices enhance employees' motivation at work, these employees are reluctant to leave their organizations. Investment in the three aspects of HR systems implies that organizations value employees' contribution and expect to establish long-term employment relationships with their employees. As a result, employees are encouraged to work harder to reciprocate and thus are less prone to quit their jobs.

Human capital theory and the resource-based view of the firm indicate that employees with appropriate human capital resulting from HR investments may be less likely to leave their organizations. First, researchers have suggested that employees with high levels of human capital are more capable of meeting job demands, receiving positive performance appraisals, obtaining promotions, and participating in decision making⁶⁰. Therefore, compared with those with less human capital, employees with higher levels of human capital will be less likely to leave their organizations. In addition, employees with high levels of human capital are better able to learn at work, which facilitates the development of specific human capital. The accumulated specific human capital may in turn reduce the likelihood employees leave, because the specific human capital that is unique and valuable for their current organization may not provide value to other organizations. Employees are unable to obtain return on their input in developing the specific human capital if they quit.

Human capital and employee motivation are also expected to mediate the influence of the three HR dimensions on operational outcomes. Researchers have widely recognized the potential impact of human capital on organizational effectiveness. According to human capital theory and the resource-based view, human capital is the primary determinant of productivity⁶³ and can be a source of competitive advantage when it is valuable and unique for an organization, hard to replace without significant costs, and not easily imitated by rivals. Therefore, with high-quality human capital pools, organizations are more likely to achieve operational goals such as high productivity and quality, great service, and innovation. Research has provided support for the positive effect of human capital on operational performance⁶⁴.

Moreover, researchers taking a behavioral perspective suggest that the value of employees' human capital cannot be realized unless they are willing to use their capabilities. To encourage employees to do so, organizations need to utilize HR practices to enhance their intrinsic and extrinsic motivation at work, which can further lead to desired work behaviors and discretionary efforts contributing to operational outcomes⁶⁵. That positive work attitudes (collective commitment) and positive perceptions of a work environment (perceived organizational support) mediate the relationships between high-performance work systems and operational outcomes.

Finally, it is proposed that mediating effects of voluntary turnover and operational outcomes on the relationships between the three HR dimensions and financial outcomes. The relationship between voluntary turnover and financial performance is complex, depending on what kinds of employees leave and whether they have been replaced appropriately. According to human capital theory, when capable employees leave, an organization loses the human capital embodied in those departing and loses the chance to realize a return on its investment in developing the human capital^{66;67}. Especially when employees possess organization-specific human capital, the loss will be detrimental for organizations' financial performance, and organizations need to take a long time to regain their competitive advantage^{68;69}. On the other hand, research has also suggested that organizations need some level of voluntary turnover. This is because employees who do not fit their jobs will self-select out of organizations, which also need new employees to provide fresh stimulus^{70;71}. However, no matter which kinds of employees leave, organizations also incur additional costs related to turnover. For example, administrative resources used in recruitment, selection, and training would have been in vain, and the organizations need to invest additional resources to search for and train new employees to replace the leavers. At the same time, operational outcomes will suffer during the vacant and training period. Further, a high turnover rate can corrupt the morale of organizations and trigger more employees to leave their jobs, thereby negatively affecting financial outcomes. In keeping these arguments, empirical studies have consistently demonstrated the existence of a negative relationship between voluntary turnover and financial performance^{72;73}. Therefore, we propose a negative relationship between voluntary turnover and financial performance.

The rationale for the positive relationship between operational outcomes and financial outcomes is clear in the literature. The financial outcomes of an organization are a function of a variety of factors, including industry environment, organizational strategy, and organizational characteristics⁷⁴. Among these explanatory factors, business operations within an organization may be a salient determinant of financial outcomes because outcomes such as productivity, quality, and service are directly related to profitability⁷⁵. In a meta-analytic review⁷⁶, found that quality of product and service were positively associated with financial outcomes. Likewise, it was also reported a positive relationship between operational outcomes and financial outcomes⁷⁷. In view of these findings, a positive relationship between operational and financial outcomes was proposed.

In sum, drawing upon the behavioral perspective of HRM, human capital theory, and the resource-based view of the firm, it is proposed that a mediating model in which the three dimensions of HR systems are indirectly related to financial outcomes through human capital, employee motivation, voluntary turnover, and operational outcomes in sequence. In building this framework, we focus on the mediating role of employees in the link of HRM with financial performance. However, our model does not exclude other paths through which HRM can help increase financial outcomes. In fact, both theoretical and empirical research has suggested that HRM can provide firms with organizational capital reflected by internal fit and flexibility^{78;79} and social capital^{80;81}, both of which can be sources of competitive advantage for organizations. Given these alternative possibilities, it was hypothesized that the intermediate outcomes proposed in our model partially mediate the positive relationships between the three HR dimensions and financial outcomes.

METHODS

The mediating hypotheses were tested with the help of meta-analytic structural equation modeling (SEM) techniques^{82;83}. To identify studies that could be used in meta-analysis, there was first the search of the PsycINFO, Web of Science, and ProQuest Digital Dissertations databases for studies published before May 2021. Multiple keywords were used. For HRM, the keywords “human resource work practice/system,” “high-performance work practice/system,” “high-involvement work practice/system,” or “high-commitment work practice/system”. Whereas, for organizational outcomes, the search for studies that also included the keywords “performance,” “outcome,” “attitudes,” “satisfaction,” “commitment,” “motivation,” “human capital,” “turnover,” “productivity,” “quality,” “service,” “safety,” “growth,” or “profitability.” Moreover, the same search was carried out for terms to conference programs from the Academy of Management (AOM) and the Society of Industrial and Organizational Psychology from 2010 to 2020. Second, reference was made to the lists of the prior reviews on this topic, including theoretical reviews^{84;85} and meta-analytic reviews. Third, an attempt was made to identify unpublished studies through the listservs of the AOM’s Human Resources and Organizational Behavior Divisions.

Four inclusion criteria were used to select studies. First, there was focuss only on studies that examined the relationships between HR practices and organizational outcomes at the organizational level (establishment, business unit, or entity^{86;87;88;89}. Secondly, included were studies that emphasized the use of HR practices/systems in organizations but not the effectiveness or the value of these practices or systems^{90;91}. Thirdly, included were studies in the meta-analysis if they reported at least one correlation among individual HR practices and various organizational outcomes. Excluded were the studies that only presented the correlations of HR systems rather than those of individual HR practices with organizational outcomes⁹². Studies without the statistical information (sample sizes, correlation coefficients) necessary to calculate effect sizes were also excluded⁹³. Finally, when the same sample was used in two or more articles, it was considered only for the one that provided more information. In contrast, when a study used two or more independent samples, it was only coded for these independent samples separately. The inclusion criteria yielded a final set of 116 articles representing 120 independent samples that included a total of 31,463 organizations.

Operationalization of Variables

Three dimensions of HR systems. Fourteen HR practices frequently examined in the literature were identified. Following previous research using the ability-motivation-opportunity framework categories of these practices were grouped into three dimensions: Skill-enhancing HR practices included recruitment, selection, and training;

Motivation-enhancing HR practices consisted of performance appraisal, compensation, incentive, benefit, promotion and career development, and job security; and, opportunity-enhancing HR practices covered job design, work teams, employee involvement, formal grievance and complaint processes, and information sharing.

Organizational outcomes. A summary of the various organizational outcomes into five categories has been provided. Human capital included overall organizational human capital measured via established scales^{94,95} and the education level of a workforce. Employee motivation was reflected by collective job satisfaction, organizational commitment, organizational climate, perceived organizational support, and organizational citizenship behavior. Voluntary turnover only represented the percentage of employees who quit or voluntarily left the organizations. Dismissal rate and overall turnover rate were not included. In addition, productivity, quality, service, innovation, and overall operational performance were viewed as operational outcomes; and return on assets, return on equity, market return, sale growth, and overall financial performance as financial outcomes. As suggested in the table, in Appendix A, that lists all the included studies and our categorizations of the three HR dimensions and different types of outcomes. This information is important to allow future research to replicate and extend this study.

Meta-analytic and Model-Testing Procedures

To test the mediating model through meta-analytic SEM, there was need to calculate meta-analytic correlations among three dimensions of HR systems and different types of organizational outcomes by correcting for measurement error and sampling error⁹⁹. For the start reliability corrections for informant-reported measures of HR practices and organizational outcomes to correct for measurement error was performed. For those studies that did not report the reliabilities of the informant-reported measures, an imputation of the reliabilities using the weighted mean of the available reliabilities estimated from the other studies⁹⁸ was carried out. Regarding the variables that were measured with archival data (return on assets), an adoption of a more conservative .80 reliability estimate, which was used in previous meta-analyses in management⁹⁷. For example, if training practices were measured by reflective items (“This firm invests considerable time and money in training”) in a study that reported the reliability of these items, a correction for the reliability for training was applied. In contrast, if training practices were measured by archival data (“On average how many hours of formal training do employees in this firm receive each year?”), we would correct for a reliability of .80 for this measure. For comparison purposes, a calculation of the reliability-corrected correlation by using a reliability of 1.00 for archival measures and did not find changes in the main findings of this study.

Second, to calculate the composites of HR practices (HR dimensions) and the composites of outcome variables (organizational outcomes categories), we combined the correlations among individual HR practices and outcomes using the formula provided as:

$$r_{XY} = \frac{r_{xij}}{n \cdot m}$$

If it is assumed that x represents a dimension of HR systems (skill-enhancing HR practices) and y represents a category of organizational outcomes (for example, employee motivation), r_{xij} is the sum of the correlations between HR practices (recruitment, selection, and training) and outcome variables (for example, collective satisfaction and commitment); n and m are the numbers of HR practices and outcome variables respectively; r_{xixj} is the average correlation among HR practices; and r_{yiyj} is the average correlation among outcome variables. By using this formula, we created a single effect size for each relationship within each study. Third, there was the use of a random-effects model to correct the sampling error by weighting each study’s effect size by its sample size. We also computed the 95% confidence interval (CI) around the sample-weighted mean correlation and Q homogeneity statistics. Confidence intervals provide an estimate of the variability around the estimated average correlation; a 95% CI excluding zero indicates that one can be 95 percent confident that the confidence interval includes the average mean true score. The Q statistic indicates the variance in the sample-weighted mean correlation; a significant Q suggests the heterogeneity of a given relationship. Research has suggested that a random-effects model provides a more accurate estimate than a fixed-effects model when relationships are heterogeneous.

Finally, the created correlation matrices in SEM computed in LISREL 8.72¹⁰⁰ was used. Because the sample sizes for different correlations were not identical, we imputed the sample size for the SEM analyses by calculating the harmonic mean of the correlation sample sizes. Compared with the arithmetic mean, the harmonic mean gives much less weight to large sample sizes and thus results in a more conservative parameter estimate. Four established model fit statistics (chi-square (X^2), the root-mean-square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root-mean-square residual (SRMR)) were used to examine the viability of the structural models. Acceptable model fit is associated with nonsignificant chi-square values and with a CFI greater than .90, an RMSEA less than or equal to .08, and an SRMR less than .10. There was the use of two statistics to test the hypotheses predicting relative effects of three HR dimensions on human capital and employee motivation which were the Z-test, which shows the significance of the difference between regression coefficients; and, the epsilon statistic, which has been commonly used to determine the relative weight of each predictor in explaining the variance of dependent variables. The results of relative weights represent the proportion of total variance (R^2) explained by each HR dimension. To analyze mediation, Sobel's (1982) test was applied to examine the statistical significance of indirect effects.

RESULTS

Differential Effects of HR Dimensions

The correlation results of the relationships among HR dimensions and organizational outcomes categories are presented in Table 1. To test Hypotheses 1, 2, 3, and 4, all three dimensions of HR systems in regression examining their effects on human capital and employee motivation were included. As shown in Table 2, all three HR dimensions had significant and positive effects on human capital. The results of Z-tests show that the regression coefficient of skill-enhancing HR practices (.29, p .01) was significantly larger than the coefficients of motivation-enhancing HR practices (.22, p .01, Z 2.74, p .01) and opportunity-enhancing HR practices (.07, p .01, Z 8.68, p .01). Moreover, the analyses of relative weights indicate that skill enhancing HR practices explained the largest percentage of variance in human capital (48%), followed by motivation-enhancing HR practices (36%) and opportunity-enhancing HR practices (16%).

Similarly, there are significantly positive effects of three HR dimensions on employee motivation. Consistently with our prediction, the influences of motivation-enhancing HR practices (.29, p .01, Z 8.64, p .01) and opportunity-enhancing HR practices (.25, p .01, Z 7.07, p .01) were significantly stronger than that of skill enhancing HR practices (.07, p .01). Motivation-enhancing HR practices and opportunity-enhancing HR practices respectively explained 45 and 38 percent of the variance of employee motivation, whereas skill-enhancing HR practices explained 17 percent. In sum, Hypotheses 1 through 4 were supported.

Mediation Results for Hypotheses 5, 6 and 7 predicted that the three HR dimensions have both direct effects and indirect effects through human capital, employee motivation, voluntary turnover, and operational outcomes on financial outcomes. We tested the proposed model (Figure 1) by inputting correlation matrices (Table 1) into LISREL 8.72. As shown in Table 3, the model fit of the proposed model was acceptable (2[9] 264.82, RMSEA .09, CFI .98, SRMR .04). All the proposed relationships among HR dimensions and organizational outcomes categories were significant and consistent with prediction except for the direct relationship between opportunity enhancing HR practices and financial outcomes (.03, $n.s.$).

A test for the direct relationships between three HR dimensions and voluntary turnover and operational outcomes. As presented in Table 3, adding paths from skill-enhancing HR practices to both outcomes significantly improved fit over that of model 1 (model 2: 2[2] 80.71, p .01). However, the path from skill-enhancing HR practices to voluntary turnover was not significant (.02, p .05). Dropping this path did not impact fit (model 3: 2[1] 1.56, $n.s.$). Furthermore, there was the addition of the direct paths from motivation-enhancing HR practices to voluntary turnover and operational outcomes and found a significant improvement in the fit over that of model 3 (model 4: 2[2] 10.54, p .01). The path from motivation-enhancing HR practices and operational outcomes was not significant (.02, $n.s.$), and we dropped it without impacting fit (model 5: 2[1] 0.76, $n.s.$). Finally, there was the addition of the direct paths from opportunity-enhancing HR practices to voluntary turnover and

operational outcomes, and both paths were significant (model 6: $\chi^2[2] = 50.22, p = .01$). Therefore, model 6 was retained as the final model for the mediation analyses.

TABLE 1 Meta-analytic Correlations between HR Dimensions and Organizational Outcomes^a

Variables	1	2	3	4	5	6	7
1. Skill-enhancing practices							
2. Motivation-enhancing practices (r, r_c)	.38, .46						
$k (N)$	55 (14,670)						
95% CI	.40: .53						
Q	822.75**						
3. Opportunity-enhancing practices (r, r_c)	.38, .47	.37, .44					
$k (N)$	49 (13,079)	50 (13,740)					
95% CI	.40: .53	.37: .52					
Q	557.95**	855.49**					
4. Human capital (r, r_c)	.35, .42	.36, .38	.25, .30				
$k (N)$	13 (2,013)	19 (3,249)	13 (2,068)				
95% CI	.27: .57	.26: .49	.24: .37				
Q	133.88**	175.97**	23.58*				
5. Employee motivation (r, r_c)	.25, .32	.33, .43	.32, .41	.37, .42			
$k (N)$	20 (4,915)	22 (4,591)	19 (4,647)	12 (1,165)			
95% CI	.26: .37	.34: .51	.31: .51	.23: .61			
Q	63.23**	148.79**	183.61**	111.91**			
6. Voluntary turnover (r, r_c)	.19, .21	.15, .17	.17, .22	.22, .26 .31, .37			
$k (N)$	19 (6,181)	24 (6,674)	19 (8,092)	7 (1,363) 11 (2,879)			
95% CI	.14: .29	.09: .25	.10: .33	.01: .53 .18: .56			
Q	142.39**	213.38**	384.16**	130.46** 208.62**			
7. Operational outcomes (r, r_c)	.25, .32	.19, .25	.25, .32	.25, .29 .32, .38	.15, .19		
$k (N)$	36 (10,224)	37 (11,041)	35 (9,576)	8 (1,198) 23 (4,618)	22 (6,002)		
95% CI	.25: .39	.17: .33	.25: .39	.06: .53 .30: .47	.10: .27		
Q	436.07**	626.61**	354.35**	108.92** 142.24**	189.14**		
8. Financial outcomes (r, r_c)	.22, .26	.22, .27	.15, .20	.19, .24 .32, .38	.15, .19	.38, .48	
$k (N)$	41 (9,966)	41 (12,219)	27 (5,610)	12 (2,028) 17 (3,354)	17 (4,055)	33 (8,863)	
95% CI	.21: .32	.21: .33	.13: .26	.16: .32 .25: .51	.08: .30	.39: .57	
Q	247.07**	384.70**	130.73**	32.04** 206.61**	181.60**	547.24**	

The mean sample-size-weighted correlation (r) and mean sample-size-weighted correlation corrected for attenuation due to unreliability (r_c) are presented. A “ k ” indicates the number of independent samples, and “ N ” is the total sample size. The 95% CI is the 95% confidence interval around the mean sample-size-weighted corrected correlation (r_c). Corrected correlations (r_c) across studies are in Q which is the chi-square-test for the homogeneity.

* $p < .05$ ** $p < .01$

TABLE 2 Results of Differential Effects of HR Dimensions on Human Capital and Motivation-Related Attitudes^a

Predictors		Human Capital	%R ²		Employee Motivation	%R ²
		<i>T</i>			<i>T</i>	
Skill-enhancing HR practices (A)	.29	15.76**	48%	.07	3.90**	17%
Motivation-enhancing HR practices (M)	.22	12.12**	36%	.29	16.30**	45%
Opportunity-enhancing HR practices (O)	.07	3.84**	16%	.25	14.12**	38%
Total R ²	.22			.25		
Z, AM	2.74* *			8.64**		
Z, AO	8.68* *			7.07**		

A Standardized coefficients are presented. Z is the test for the significance of the difference between the regression coefficients.

* $p .05$

** $p .01$

FIGURE 1 Theoretical Model of Effects of HR Dimensions on Kenyan Public University Organizational Outcomes

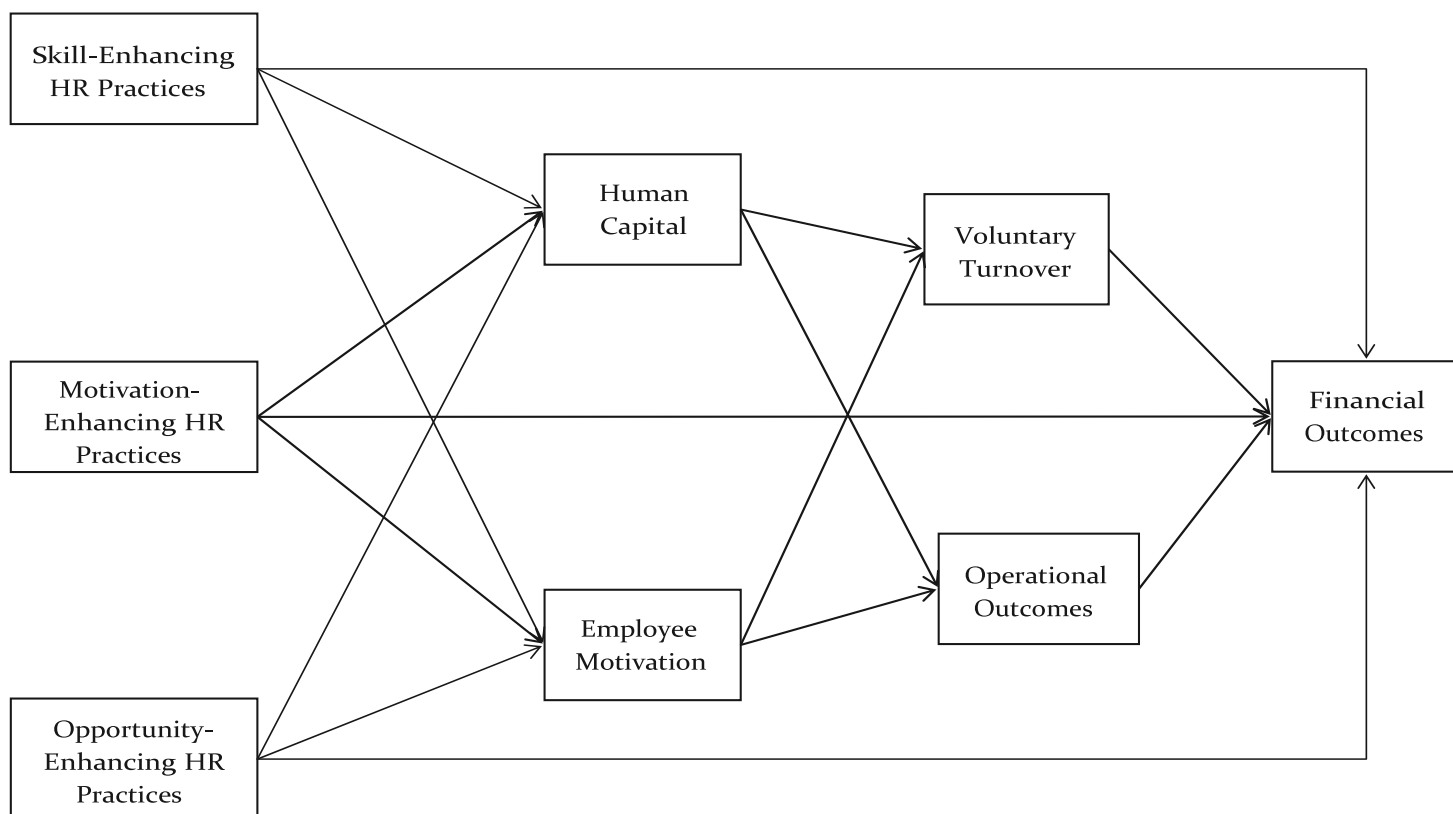


TABLE 3 Fit Statistics for Alternative Models^a

Models	2	df	²	CFI	RMSE A	SRMR	AIC
Three HR dimensions Theoretical model (Figure 1)	264.82	9		.98	.09	.04	318.32
Alternative model 1 ^b	269.47	10	4.65* ^c	.98	.08	.05	321.47
Alternative model 2 ^d	188.76	8	80.71** ^e	.98	.08	.03	244.76
Alternative model 3 ^f	190.32	9	1.56 ^e	.98	.07	.03	244.32
Alternative model 4 ^g	179.78	7	10.54** ^e	.99	.08	.03	237.78
Alternative model 5 ^h	180.54	8	0.76 ^e	.99	.08	.03	236.54
Alternative model 6 ⁱ (Figure 2)	130.32	6	50.22** ^e	.99	.08	.02	190.32
Latent high-performance work systems (HPWS) Theoretical model (Figure 3)	570.74	16		.95	.10	.05	610.74
Alternative model 7 ^j (Figure 4)	406.51	14	147.72** ^k	.96	.09	.03	450.51

a. $n = 3,724$.

b. Deletes the direct paths from opportunity-enhancing HR practices to financial outcomes.

c. Model fit compared with the theoretical model of the effects of three HR dimensions on organizational outcomes (Figure 1).

d. Adds the direct paths from skill-enhancing HR practices to voluntary turnover and operational outcomes.

e. Model fit compared with the previous model.

f. Deletes the direct paths from skill-enhancing HR practices to voluntary turnover.

g. Adds the direct paths from motivation-enhancing HR practices to both voluntary turnover and operational outcomes. h Deletes the direct path from motivation-enhancing HR practices to operational outcomes.

h. Adds the direct path from opportunity-enhancing HR practices to voluntary turnover and operational outcomes.

i. Adds the direct path from HPWS to both voluntary turnover and operational outcomes.

j. Model fit compared with the theoretical model of the effects of HPWS on organizational outcomes (Figure 3).

* $p < .05$

Key:

AMO - Ability-Motivation-Opportunity

CFI - Comparative Fit Index

CI - Confidence Interval

HPWS - High Performance Work Systems

LISREL – Linear Structural Relations: a proprietary statistical software package used in Structural Equation Modeling (SEM) for manifest and latent variables

RMSEA - Root-Mean-Square error of approximation

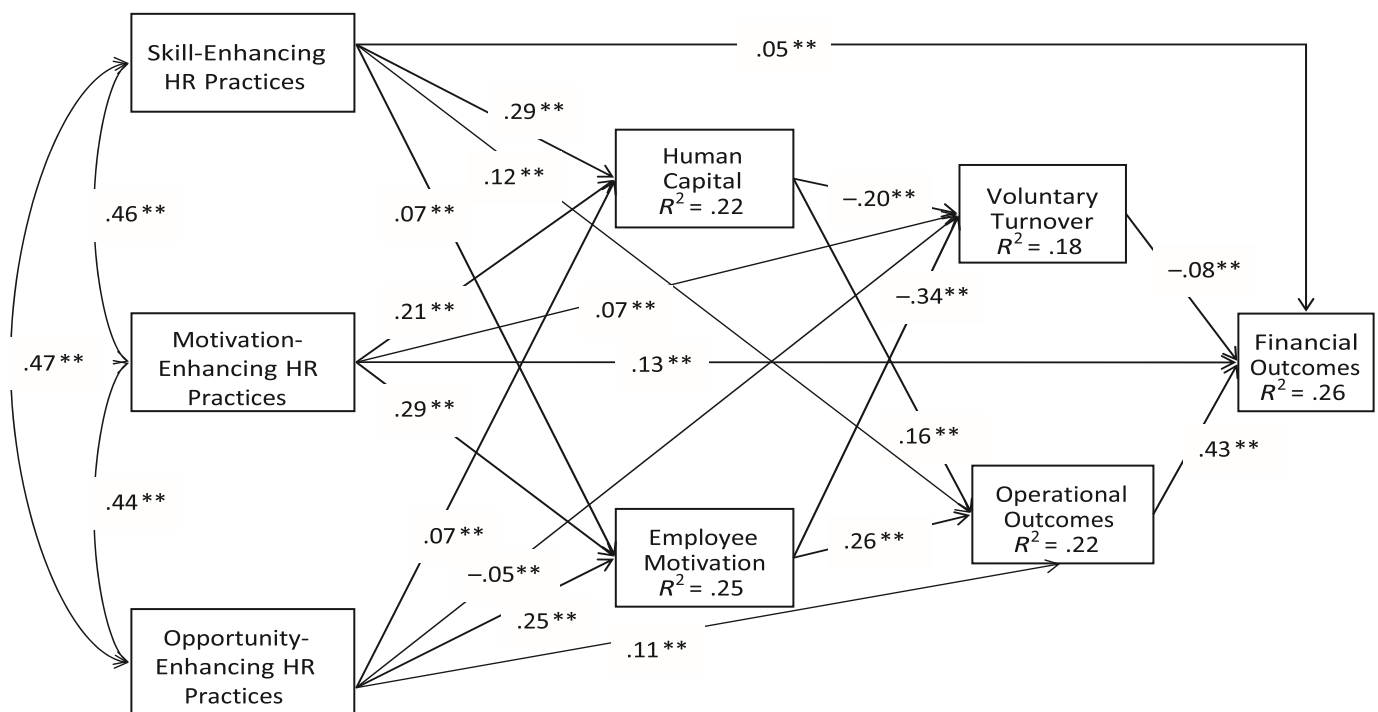
SEM - Structural Equation Modeling

SRMR - Standardized Root-Mean-Square Residual

The standardized path estimates for the final mediating model are presented in Figure 2. Both human capital and employee motivation were negatively related to voluntary turnover (.20, p .01 for human capital; .34, p .01 for employee motivation) and were positively related to operational outcomes (.15, p .01 for human capital; .26, p .01 for employee motivation). In turn, voluntary turnover was negatively related to financial outcomes (.08, p .01), whereas operational outcomes were positively associated with financial outcomes (.42, p .01). Sobel (1982) tests showed that the indirect relationships between all three HR dimensions and voluntary turnover, operational outcomes, and financial outcomes were significant (Z varied from 8.05 to 13.89, all p -values were less than .01). In sum, these results suggest that human capital, employee motivation, voluntary turnover, and operational outcomes partially mediated the relationships between skill-enhancing and motivation-enhancing HR dimensions and financial outcomes and fully mediated the relationship between opportunity-enhancing HR practices and financial outcomes. Hypotheses 5, 6 and 7 were supported.

The indirect effects and total effects of the three HR dimensions on financial outcomes from the estimates in SEM was obtained. The total effects of skill-enhancing, motivation-enhancing, and opportunity-enhancing HR dimensions on financial outcomes were .13, .18, and .09 respectively (all p 's .01). The indirect effects mediated by human capital, employee motivation, voluntary turnover, and operational outcomes were .08, .05, and .09 for the three HR dimensions respectively. Also calculated was the squared multiple correlations (R^2 's) for structural equations predicting human capital (.22), employee motivation (.25), voluntary turnover (.18), operational outcomes (.22), and financial outcomes (.26). The results indicate that the final model explained a moderate amount of variance in these variables.

FIGURE 2 Final Model of Effects of HR Dimensions on Kenyan Public University Organizational Outcomes^a



^a Standardized coefficients are presented; $n = 3,714$.

In addition, a post hoc analysis was carried out to examine whether the three-dimensional model (model 6) fit the data better than a uni-dimensional model that treats the three HR dimensions as indicators of high-performance work systems (HPWS; Figure 3). As shown in Table 3, the partial mediating model (model 7), in which HPWS has direct impact on voluntary turnover, operational outcomes, and financial outcomes, fits the data well ($\chi^2[14] 406.51$, RMSEA .09, CFI .96, SRMR .03). Because the two models (6 and 7) were not nested, we relied on indexes other than chi-square change to compare them. In general, the three-dimensional model (model 6: RMSEA .08, CFI .99, SRMR .02) fit better than unidimensional model 7, but the differences in fit indexes were not great. Then we used an additional fit index, Akaike's information criterion (AIC; Akaike, 1974), which is generally used in SEM to compare non-nested models estimated with the same data. The value

of AIC itself does not indicate the quality of a model; only the AIC relative to that of another model is meaningful. Lower values indicate a better fit, and so the model with the lowest AIC is the best fitting one. As shown in Table 3, the AIC for model 6 (190.32) was lower than that for model 7 (450.51), which indicates the three-dimensional model fit the data better than the unidimensional model.

DISCUSSION

The objective of this meta-analytic review was to contribute to strategic HRM research by exploring the mediating mechanisms through which HR practices influence Kenyan public university organizational outcomes. Drawing upon the ability-motivation-opportunity model of HRM, the behavioral perspective of HRM, human capital theory, and the resource-based view of the organization, it was proposed and found that the three dimensions of HR systems had differential relationships with human capital and employee motivation, which were in turn related to voluntary turnover and operational outcomes, and were further associated with financial outcomes. In addition, the findings demonstrated the direct relationship between skill-enhancing HR practices and motivation-enhancing HR practices and financial outcomes.

Research Implications

This research offers a number of important theoretical contributions. First, it adopts multiple theoretical perspectives on HRM to extend previous mediating models of HRM's influence on organizational outcomes. Drawing upon the behavioral perspective on HRM, human capital theory, and the resource-based view, the study demonstrated that HRM positively relates to financial performance both by encouraging desired employee behaviors and by building a valuable human capital pool. It has also suggested that future research should simultaneously address the mediating roles of human capital and employee motivation so that it can provide a clearer understanding of the linkage between HRM and operational and financial outcomes.

FIGURE 3 Theoretical Model of Effects of HPWS on Kenyan Public university Organizational Outcomes

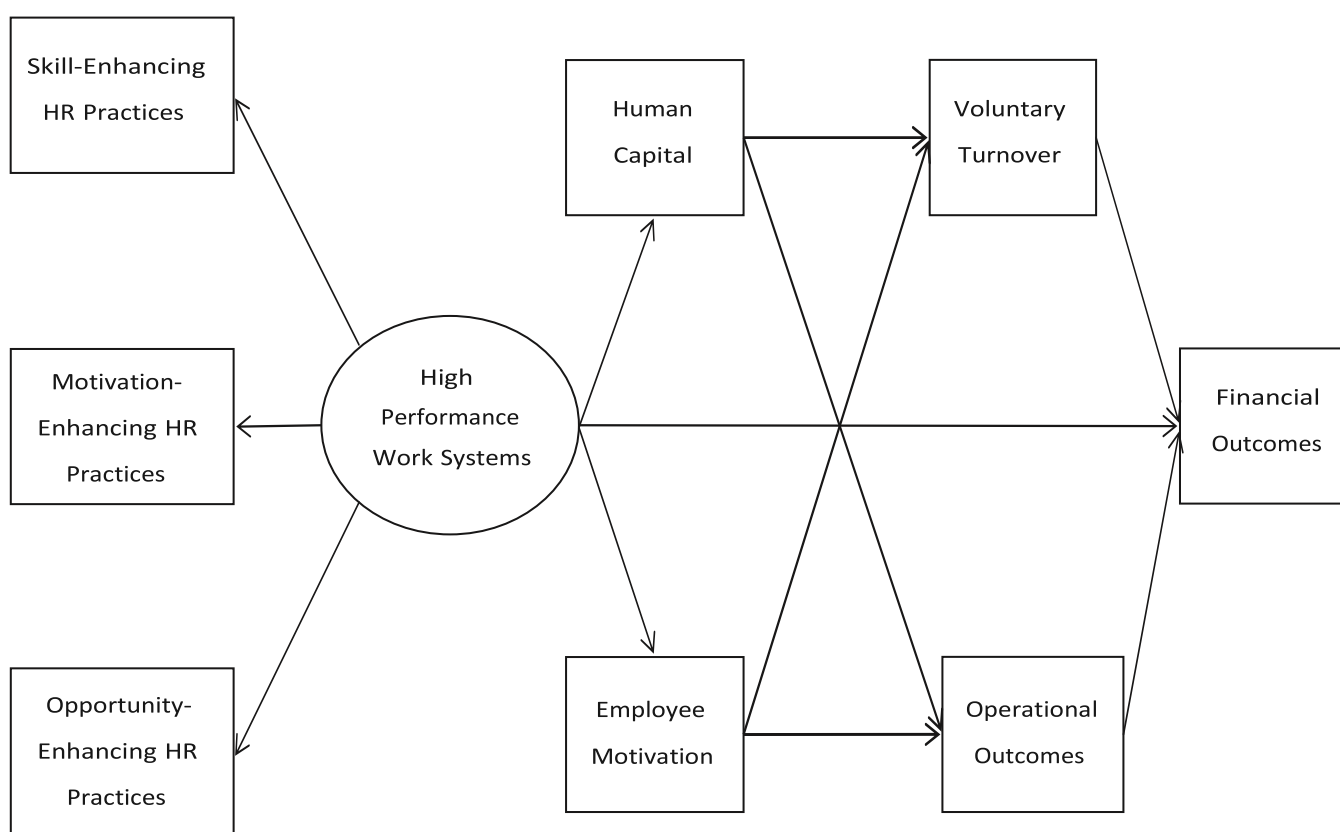
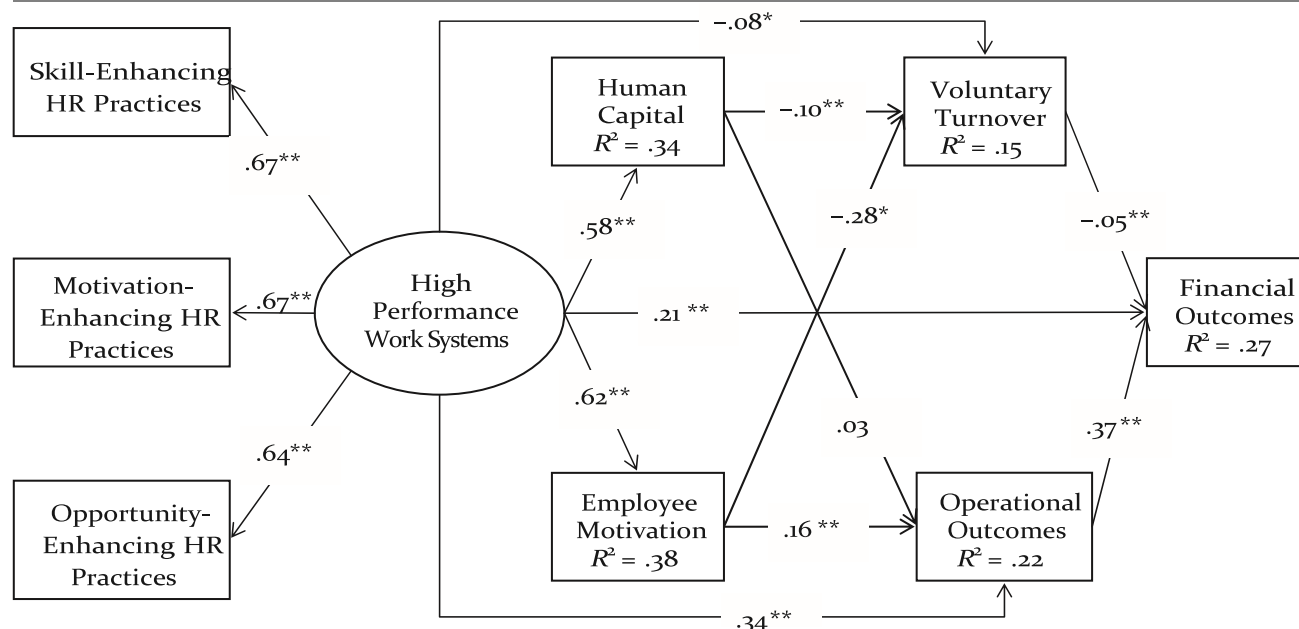


FIGURE 4 Effects of HPWS on Kenyan Public university Organizational Outcomes



Standardized coefficient are presented; n,714.

* p .05

** p .01

Moreover, this study embraced the multidimensionality of performance as well as the potential for different relationships with proximal and distal outcomes. Research had recently called for studies to simultaneously examine multiple outcome variables that had only been studied independently before. With the help of meta-analytic techniques, it tested a comprehensive mediating model and provided empirical support for the theoretical proposition that HRM first relates to proximal outcomes, which further relate to distal outcomes and revealed that the relationships between HRM and distal outcomes (operational and financial outcomes) could be mediated through multiple pathways (through human capital and employee motivation). Moreover, as expected, there were direct relationships between skill-enhancing HR practices and motivation-enhancing HR practices and financial outcomes that could not be explained by the mediating process. This is consistent with prior research suggesting that HRM can improve organizational effectiveness through alternative approaches such as affecting internal interaction within organizations and enhancing the social capital of organizations. The findings of the current study and others suggest that it is meaningful for future research to further explore other mediators of the relationship between HRM and organizational outcomes.

One major contribution of this study to the strategic HRM literature is that the results suggest differential effects of the three dimensions of HR systems. This finding is important both in theory and in the methodology of measuring HR systems. Theoretically, this finding challenge previous research, in which the assumption has been that all HR practices in an HR system function in the same pattern. Our findings remind researchers that different dimensions of HR systems may have unique relationships with specific organizational outcomes. For example, skill-enhancing HR practices were more effective in enhancing human capital, whereas motivation-enhancing HR practices and opportunity-enhancing HR practices were more likely to improve employee motivation. This result is also consistent with research suggesting the heterogeneous effects of the components of HR systems on organizational outcomes. HR practices are not only distinct but also operate via different pathways. Therefore, it is suggested that additional research be carried out to explore the influence of these components of HR systems to advance knowledge of the relationship between HRM and organizational outcomes.

The findings of the differential relationships between the dimensions of HR systems and organizational outcomes also offer methodological implications for strategic HRM research. First, if all three dimensions of HR systems have unique effects on organizational outcomes, failure to include any dimension may compromise the overall

impact of HR systems on organizational outcomes or at least lead to inaccurate results. Moving forward, it is suggested that future research needs to include all three HR dimensions in their measures of HR systems. Moreover, the results show that the three HR dimensions have differential relationships with human capital and employee motivation. Relatedly, the results indicate that the three-dimensional model fit the data slightly better than the model combining the three HR dimensions into a uni-dimensional HPWS element. Combined, these findings offer preliminary evidence that the three HR dimensions are better viewed as three distinct but related components of HR systems rather than inter-changeable indicators of HR systems. This suggestion is consistent with previous research that argued that the measure of HR systems should be formative rather than reflective, and it encourages research to re-consider whether it is appropriate to utilize addition of HR practices to represent HR systems. As an alternative approach, research might categorize HR practices into the three HR dimensions and explore their main effects and interactions on organizational outcomes.

Practical Implications

This study also offers implications for managerial practices. First, the findings indicate that the investment in three HR dimensions was associated with the increase in financial outcomes. Specifically, it found that given no change in other conditions, a one standard deviation increase in skill enhancing, motivation-enhancing, or opportunity enhancing HR practices was related to a .13, .18, or .09 standard deviation increase in financial outcomes. For example, the relationships that have been examined between motivation-enhancing HR practices and financial performance reported a mean and standard deviation of 0.46 and 1.64 for Tobin's Q . If this is applied to the findings of this study, one standard deviation increase in motivation-enhancing HR practices is associated with 64 percent improvement in Tobin's Q . This result suggests that Kenyan public university organizations can obtain substantial financial benefits from investing in the three HR dimensions considered here.

In addition, the results of this study shed light on the ways in which managers can increase the benefits of investing in HRM. The results indicate that to retain talented employees and realize operational and financial objectives, Kenyan public university organizations need to use HR practices to enhance both employee skills and motivation at work. More specifically, it is suggested that Kenyan public university organizations focus more on practices, such as recruitment, selection, and training when enhancing employee skills. In contrast, when the organizations aim to improve employee motivation, they should consider how to appraise employees' performance, how to compensate for their work, how to make jobs meaningful and interesting, and how to involve employees in work teams and decision making. With these suggestions, it is suggested that the organizations need to maximize the return on their investment in HRM by using appropriate HR practices.

This study also indicates that Kenyan public university organizations' investment in HRM leads to financial outcomes through a mediating process. Any other factors that can impact the intermediate variables may affect the effects of HRM on the distal financial outcomes. This reminds managers of attending to whether their HR practices improve employee skills and motivation effectively and whether other managerial initiatives can boost or undermine the effects of HR practices.

Suggestions for Further Research

The limitations to be noted in this study have been identified and presented as follows:

First, some studies included in this meta-analysis used informant-reported measures to evaluate HR practices and organizational outcomes from the same source. This may lead to common method bias, which might inflate the correlations between HR practices and organizational outcomes. Relatedly, most of the studies included in the analysis had cross-sectional designs, which may limit conclusions regarding the direction of the mediating mechanism. The results from the current investigation should be interpreted with these limitations in mind. More longitudinal studies that collect information on HR practices and organizational outcomes from different sources need to be carried out. Future meta-analysis can explore if a longitudinal research design may influence the estimates of effect sizes and the mediating mechanisms examined in this study.

Second, potential moderators may exist in the relationships among HR dimensions and organizational outcome categories. For example, recent meta-analytic reviews have reported that industry type (manufacturing industry vs. service industry) and country moderated the relationship between HPWS and organizational outcomes. Researchers have also suggested that HR practices applied to a specific group of employees, or used for employees in general, may influence their effects on organizational outcomes. Future research can examine this mediating model by using samples from different job groups.

A third limitation of this study is that this study did not explore synergy among the three HR dimensions by examining their interactions, even though the synergies within HR systems have been suggested in the literature. Operationally, this was impossible owing to how existing studies were measured.

Fourth, the current study examined voluntary turnover as an intermediate outcome mediating the relationships between the three HR dimensions as well as employee human capital and motivation and financial outcomes. However, a growing literature indicates that voluntary turnover may moderate the relationship between HRM and financial outcomes. It is, therefore, suggested that further studies be carried out to explore this issue in future research. In addition, recent turnover research suggests that involuntary turnover or dismissal is also influenced by HR practices and negatively related to operational and financial outcomes.

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