sustainability

MDPI

Article

Exploring the Relationships among HRM Investment, Strategy Implementation, and Firm Performance with Multiple Correspondence Analysis

Seungyoup Choo

Division of General Studies, Kyonggi University, Suwon 16227, Republic of Korea; schoo@kgu.ac.kr

Abstract: This study visually explores the relationships among human resource management (HRM) investment, strategy implementation, and firm performance for small- and medium-sized enterprises (SMEs) in Korea. This exploratory research focuses on the significance of strategy implementation, an often overlooked factor in the relationship between HRM and firm performance, as well as HRM investment, which can enable the development of organizational capabilities. We conducted a multiple correspondence analysis to understand the interrelationship between HRM investment, competitive strategy implementation, and firm performance. We differentiated the results by group type according to the level of HRM investment, competitive strategy implementation, and firm performance. We found that firms with high HRM investment achieve the highest performance by implementing an ambidextrous strategy that simultaneously pursues cost leadership and differentiation. Ultimately, this study's results suggest that for firms to create a competitive advantage through the strategic capitalization of human resources, long-term and continuous investment in HRM is necessary, even if short-term visible effects are not observed while the HRM system is being built, to eventually establish the organization's capacity to support strategy execution. This study's potential contribution is to extend the resource-based view by establishing the role of strategy implementation in linking HRM systems as organizational capabilities to performance.

Keywords: HRM investment; competitive strategy; strategy implementation; resource-based view

Citation: Choo, S. Exploring the Relationships among HRM Investment, Strategy Implementation, and Firm Performance with Multiple Correspondence Analysis. *Sustainability* **2024**, *16*, 4830. https://doi.org/10.3390/su16114830

Academic Editors: Peter Fieger, John Rice, Bridget Rice and Nigel Martin

Received: 21 April 2024
Revised: 25 May 2024
Accepted: 3 June 2024
Published: 5 June 2024

1. Introduction

Due to the intensification of global competition and rapid technological development, the traditional factors once considered the source of competitive advantage are losing their function in today's rapidly changing business environment. Nevertheless, the recognition that human resources can be a continuous source of competitive advantage as a core management resource for organizations has spread. In this regard, the resource-based view provides the theoretical grounds for the potential role and importance of human resources as a strategic asset for companies [1,2]. While technological, physical, and financial resources are becoming more readily available to competitors and can no longer sustain a company's competitive advantage, human resources with specialized knowledge, technology, and capabilities are valuable, rare, difficult to imitate, and intertwined with organizational characteristics, thus attracting attention as a continuous source of competitive advantage [3–5].

In this context, the trend of recent research in the field of human resource management (HRM) is to understand the overall functions of HRM as a bundle or system [6–10]. Additionally, research is underway to illuminate the functions of human HRM from a holistic perspective through integration with strategic management and organizational theory, leading to a paradigm shift. For example, issues such as strategic HRM [2,11–15], high-performance work systems [16–18], commitment maximizing [6], and high-involvement HRM systems [19] have been investigated to clarify the relationship between HRM and organizational performance.

This series of research flows reflects the strategic importance of HRM in firms and highlights the need for HRM functions and systems to align and integrate with the overall corporate strategy. In other words, there is a consensus that effectiveness is maximized when HRM systems and functions are systematically aligned with planned actions toward achieving organizational goals at a corporate level rather than functioning individually. Moreover, it is believed that a competitive advantage can be created by building a highly effective human resource system through the adjustment of HRM practices (internal fit) and that choosing a strategy suitable for the HRM system (external fit) can be expected to result in high performance [2].

However, these studies have failed to identify the process of "how the HRM system is connected to firm performance". In particular, the importance of strategy implementation has been overlooked compared to strategy formulation in these relationships [16]. With a specific focus on strategy implementation, this study takes a nuanced approach. We categorized strategy implementation into four distinct types: differentiation and cost leadership strategy as pure competitive strategies, an ambidextrous strategy that implements both simultaneously, and a 'stuck-in-middle' strategy that balances both strategies without fully pursuing either. We then examined how these different strategies impact the level of investment in HRM and, in turn, firm performance. This unique approach enabled us to visually identify the relationships among HRM investment, strategy implementation, and firm performance.

Indeed, strategy implementation significantly impacts the relationship between HRM and firm performance [16,20,21]. In addition, strategy implementation ability can be a source of competitive advantage [22]. Established strategies are often not appropriately implemented because the organization's capabilities for effective strategy implementation are not supported [23]. Therefore, a link that represents organizational capabilities based on management resources is needed between strategy establishment and strategy implementation, and this can be achieved by establishing an effective HRM system through continuous investment.

Based on resource-based theory, this study exploratively analyzes the relationship between the degree of investment in HRM systems (HRM investment), competitive strategy, and firm performance, targeting technology-oriented small- and medium-sized enterprises (SMEs) in Korea. Many companies that have developed organizational capabilities to support strategy implementation through HRM investments can demonstrate high management performance by effectively implementing strategies with contradictory characteristics. Conversely, small HRM investments are insufficient for building the capabilities required to properly execute these strategies. In such cases, high management performance is unlikely. In particular, SMEs, the target of this study, have different characteristics and conditions compared to large companies in terms of capabilities and resources and have high levels of competency and motivation to create a competitive advantage. Organizational capabilities developed through human resources and human resource management systems are relatively more important for small companies than for large ones [18]. Therefore, SMEs are a suitable subject for this study's exploratory purpose of identifying the relationship between HRM investment and implementation strategies according to the level of firm performance. In doing so, we aim to provide practical insights for our professional colleagues in the fields of HRM and strategic management.

2. Theoretical Background and Hypothesis

2.1. Resource-Based View

Since Wernerfelt (1984) introduced the ideas from Penrose's (1959) book, *The Theory of the Growth of the Firm*, into the field of strategic management [24,25], the resource-based view (RBV) has played an important role in this field as a new perspective that underscores the significance of a company's internal capabilities, complementing the industrial structural analysis [26–28] that primarily focuses on a firm's external environment.

This approach suggests that human resources are more significant than physical resources because they are pivotal for accumulating new knowledge and experience within a company. This accumulation occurs through interactions with other management resources, which leads to the belief that it catalyzes the production of many underutilized resources and, ultimately, fosters corporate growth.

The RBV's considerable impact in the field of strategic management can be attributed to the identification by several scholars, such as Barney (1986) and Dierickx and Cool (1989) [29,30], of the nature of 'markets' for resources. First, Barney (1986) [29] argued that competitive advantage is created as a result of uncertainty in strategic factor markets. In his view, obtaining optimal and "unique" resources is challenging for effectively implementing competitive strategies in factor markets. The value of general resources that can be traded through the market can be determined by their market price. However, a company's unique management resources cannot exist independently of other resources, so it is difficult to set a market price for them which, in turn, makes them impossible to trade or move. For example, management resources, including unique skills and capabilities, which are combined through interactions among organizational members, are the human elements of a specific company. These resources cannot be easily acquired or imitated in the market, creating a sustainable competitive advantage.

In this regard, Dierickx and Cool (1989) [30] understood the dynamic process (accumulation) through which management resources are accumulated in a company as a factor that makes these resources difficult to imitate. They emphasized the characteristics that emerge when management resources are combined with the organizational factors of a company. Moreover, they believed that resource accumulation is a part of a company's asset accumulation process that other companies cannot imitate in the factor market. They suggested time compression diseconomies of resource accumulation, asset mass efficiencies, interconnected asset stocks, asset erosion, and causal ambiguity. Among these, key characteristics, such as causal ambiguity, can be created mainly by organizational human resources [3].

2.2. Resource-Based View and HRM Investment

Dierickx and Cool (1989) [30] argue that the flow aspect of management resources should be considered together with the stock aspect of management resources. According to them, companies should improve competitiveness by securing a stock of non-tradable strategic resources, such as firm-specific human capital, which is made possible by continuously accumulating the flow of resources. Suppose the level of a company's HRM system established at a specific time corresponds to stock, then the organizational routines, various procedures, and processes of selecting, assigning, training, developing, and moving organizational members in HRM activities can be considered as the flow [31]. Therefore, the size and sustainability of HRM investments must be considered, as they affect the dynamic combination and flow of resources, including human resources. Routines, as a flow of management resources, can become fundamental sources of competitive advantage by enabling the development of organizational capabilities [32].

Moreover, Barney (1991, 2001) and Barney and Wright (1998) emphasized that the strategic resources leveraged to gain competitive advantage must be valuable, rare, inimitable, non-substitutable, or combined with organizational characteristics (VRIO-N: value, rareness, imitability, organization, or substitutability) [3,5,22]. To secure such conditions for competitive advantage, Wright et al. (1994) suggested building a human capital pool within a company, consisting of a highly skilled and highly motivated workforce [33]. Their proposal implies the need for continuous investment in human resources within companies.

Furthermore, studies such as Lado and Wilson (1994), Becker and Gerhart (1996), and Barney and Wright (1998) demonstrate that a unique system built by combining complementary and interdependent HRM functions can enhance a firm's capabilities [5,7,9]. In this way, a firm's capabilities, strengthened through a unique system, could satisfy the conditions for competitive advantage (VRIO-N framework). These studies emphasize

the importance of corporate investment in establishing an effective HRM system. They propose job structures that can strengthen the interdependence between firm specificity and HRM components, team-oriented job structures and compensation systems rather than focusing solely on individuals, and the training and development of human resources. Therefore, a company's continuous investment in HRM contributes to human capital accumulation by activating communication between human resources within the organization and improving interconnectivity. Ultimately, the organizational capabilities inherent in the HRM system that are developed on this basis can satisfy the conditions for competitive advantage [3,15,34–36].

2.3. HRM Investment and Competitive Strategy Implementation

Studies that have focused on HRM's strategic importance have argued that the effectiveness of a firm's HRM system cannot be separated from the firm's situational context [13] and that high performance can be expected only when the HRM system aligns well with the competitive strategy [37]. However, studies that have attempted to identify the appropriate type of fit between the competitive strategy and the HRM system, or verify the differences in performance based on the level of fit, have yielded inconsistent results [16,17].

Despite the widespread acceptance of contingency approaches in strategic HRM, the relationship between the competitive strategy and HRM systems remains unclear because actual competitive strategies and HRM systems are formed independently or gradually in many firms [38]. Additionally, the competitive strategy embodies the decision-making attributes of product and market selection and concentration at the business-unit level [26,39]. The competitive strategy reflects the firm's external environment in terms of industry structure and competition. Thus, during this period, the strategic management field has focused on the external environment and has yet to sufficiently consider the firm's resources and internal capabilities, such as the HRM system [26].

Traditional studies based on contingency approaches have focused on how organizations should respond to the environment and implement competitive strategies to be effective. On the other hand, more research is needed to explore how firms can secure the capacity to establish and implement competitive strategies. For a firm's established strategy to be appropriately executed and connected to management performance, it must be supported by the organizational capabilities necessary for effective strategy implementation [23]. However, because adjusting the organization's resources to match the established strategy is challenging [40], an effective HRM system that can create the necessary capabilities for strategy implementation must be established and sustained with long-term HRM investment.

Meanwhile, the general view that the appropriate HRM system depends on the type of competitive strategy has the limitation that it does not reflect the companies' actual situational contexts. From a traditional perspective, competitive strategies are divided into differentiation and cost leadership strategies [40]. In a similar vein, Porter (1980) [26] presented three fundamental types of competitive strategies: differentiation, cost leadership, and centralization. However, the attributes of a centralization strategy depend on the scope of competition; therefore, the primary sources of competitive advantage can be characterized as differentiation and cost leadership strategies [28].

To be able to provide differentiated value at each market's product and marketing levels, differentiation strategies inevitably lead to a high-cost structure. By contrast, the cost leadership strategy aims for a low-cost structure by thoroughly controlling unnecessary cost elements. These conflicting characteristics represent a trade-off between the two competitive strategies.

Despite this fundamental trade-off, today, as competition between companies intensifies, more companies are employing an ambidextrous strategy that pursues both differentiation and cost leadership strategies. These companies reportedly achieve relatively high firm performance compared to companies that pursue only a single strategy [41–43]. For exam-

ple, a strategy that simply pursues cost advantage in a mature industry or differentiation in a market with similar consumer demand cannot secure a competitive advantage [44].

An effective HRM system enhances the capabilities that are a source of competitive advantage across individual and organizational levels. A company's investment in human resources, which includes job security, selective recruitment, employee participation, performance-based compensation, education and training, and information provision, drives the implementation of innovation and differentiation by inducing the immersion, dedication, and participation of organizational members. Additionally, by encouraging employees to actively contribute to improving efficiency, cost-reduction effects beyond labor cost savings can be realized [38,45].

2.4. HRM Investment, Competitive Strategy Implementation, and Firm Performance

The strategic management of human resources is not intended to successfully implement either a cost leadership strategy or a differentiation strategy. Rather, the goal is to build a foundation of organizational capabilities that can support both cost leadership and differentiation strategies to suit the company's environment. Even if a firm has an appropriate HRM system to effectively convert human resources into strategic assets, full support from management is required. This support is necessary to overcome the significant resistance and obstacles within the organization, fully establish the system within the organization, and develop it into a solid organizational capability. Therefore, whether it is a cost leadership or differentiation strategy, a firm's established competitive strategy can only be effectively implemented and lead to high firm performance if a high level of HRM investment is continuously allocated, and strong organizational capabilities are developed that can support human resource strategies.

The relationship between a company's level of HRM investment and the implementation of its competitive strategy, which is the focus of this study, will generally not appear as a proportional linear relationship and will be more clearly visible in companies that show high firm performance due to strong organizational capabilities. In particular, organizational capabilities developed through HRM investments are more important for SMEs, which have relatively limited resources compared to large companies with abundant physical resources. To summarize, the impact of HRM investment on the implementation of competitive strategies in SMEs is expected to be greater in high-performing companies compared to low-performing companies. Based on this argument, this study derives the following hypothesis:

Hypothesis 1. *In SMEs, a high level of HRM investment is closely related to the implementation of an ambidextrous competitive strategy and a high level of performance.*

3. Materials and Methods

3.1. Sample and Data Collection

For the present study, we surveyed domestic technology-centered manufacturing-sector SMEs to clarify the relationship between HRM investment, implementation of a competitive strategy, and firm performance. The main variables for hypothesis verification were challenging to understand through secondary data and were related to the firm's internal management strategies and organizational management. Therefore, the survey method was deemed appropriate, as it required perceptual measurements of decision-makers with strategic decision-making authority.

The survey was distributed and collected from August to October 2018 through the Korean Industrial Technology Testing Institute, a credible Korean technology certification agency. This survey period was stable, and no significant events, such as the COVID-19 pandemic (coronavirus disease 2019), caused changes in the corporate external environment domestically or abroad that could impact the survey respondents. The survey prioritized the top management of companies as respondents. In cases where the participation of top management was difficult, we examined the company's management and strategy

to identify the key departments responsible for the practical operation of the company's overall strategy and management. Then, we surveyed the responsible parties of those departments. This process was based on the research of Shortell and Zajac (1990), which verified that survey data from key functional department heads have sufficient reliability and validity for strategic direction measurement at the corporate level [46].

For this study, we initially distributed the questionnaire to 1000 target firms and excluded data that were unreliable due to insincere responses from the remaining 227 returned firms, which resulted in the final sample of 224 firms. Specifically, this study's sample encompasses SMEs in the technology-focused manufacturing sector and various industries. Specifically, the industry distribution of the target firms was 87 (38.8%) in electricity and electronics, 47 (21.0%) in machinery, 11 (4.9%) in information and communication, and 79 (35.3%) in other manufacturing industries. In terms of size, 173 (77.2%) of the firms had 50 or fewer employees, 26 (11.6%) had 51 to 100 employees, 21 (9.4%) had 101 to 200 employees, and 4 (1.8%) had 200 to 300 employees. Most of the study sample comprised small firms with 50 or fewer employees, reflecting the characteristics of SMEs.

3.2. Measures

The survey questions in this study were answered on a 5-point Likert scale (See Appendix A). Firstly, HRM investment was operationalized as the degree to which a company allocates resources to its overall HRM system. HRM systems can assume various configurations in terms of policies, institutional levels, and components [13]. However, this study defined HRM investment based on commonly applied corporate HRM norms and treated it as a guiding principle.

The survey used ten questions to assess characteristics commonly associated with HRM systems, including recruitment, respect for employees, employee participation, employment security, education, wage levels, and compensation. These questions aimed to determine how much a company's HRM investments align with the individual needs of its organizational members. HRM investment was conceptualized as how much a company develops the capabilities and provides the conditions that enable individuals to maximize their potential [7].

From the perspective of strategic HRM, it is commonly acknowledged that the HRM system should be viewed as a bundle of HR practices rather than individual units [2,10,13,38,45]. Therefore, an additive method (additive index) was employed in this study, which involved averaging the scores of the eight measurement items [11,47]. Specific items used to measure HRM investment included the following: 'efforts to recruit excellent human resources', 'reasonable treatment of capable employees', 'democratic decision-making processes within the company', 'consideration of employee suggestions', 'support for training and skill development', 'establishment of trust between management and employees', 'effective implementation of profit sharing or bonus systems', and 'provision of adequate compensation to employees as the company grows'. Based on the results of the survey, through K-means clustering (a non-hierarchical cluster analysis method), nominal variables were created to classify HRM investment into three types—strong, moderate, and weak—and were used in this study's analysis.

Competitive strategy implementation was measured according to Porter's (1980) [26] criteria regarding the implementation of two types of fundamental competitive strategies: differentiation strategy and cost leadership strategy. Specifically, detailed questions on differentiation strategy and cost leadership strategy were used building on Dess and Davis (1984) and Miller (1988) [48,49]. The items for differentiation strategy were as follows: 'Development of new products for the first time in the domestic market', 'Securing professional technical personnel', and 'High-quality products'. The items for cost leadership strategy included 'Efforts to maintain appropriate inventory', 'Strategic cost reduction efforts', and 'Degree of diversification of the Produced products line'. To understand the relationship between HRM investment and firm performance according to the type of competitive strategy implementation, we used K-means clustering based on the measured

competitive-strategy values to classify the types of companies' competitive strategies. In the final analysis, strategy implementation types were classified according to the level of implementation of individual strategies. The strategy implementation types include an 'ambidextrous strategy' that implements both cost leadership and differentiation at a high level, a 'cost leadership strategy' that implements cost leadership at a relatively high level, and a 'differentiation strategy' that implements differentiation at a high level. Lastly, we classified the 'stuck in the middle' type, representing low levels of both cost leadership and differentiation.

Firm performance measures the subjective level of performance perceived by managers. Because the research subjects included a large proportion of small companies with less than 50 employees and covered a variety of industries, some limitations made it challenging to apply objective performance indicators that could be directly compared. Therefore, based on previous research [50,51], firm performance was measured using cognitive measurement items that have been confirmed to have a high correlation with performance. Firm performance was measured with four items: 'sales growth rate', 'operating profit ratio', 'technological superiority in products', and 'customer satisfaction' over the past three years compared to competing companies in the same industry and of the same size. Ultimately, high-, moderate-, and low-performance companies were classified and evaluated with a multiple correspondence analysis based on the K-means clustering of the measured firm performance.

3.3. Validity and Reliability

We analyzed the validity and reliability of the main study variables, and the results are presented in Table 1. Through factor analysis, we identified four factors with eigenvalues greater than 1. The factor loadings for all measurement items exceeded 0.6, indicating that each factor had a single dimensionality. Furthermore, the factors collectively accounted for 65.49% of the total variance, suggesting that the extracted factors reasonably represented the data. Reliability analysis revealed that all factors had Cronbach's alpha values above 0.7, indicating the high reliability of this study's measurement tool.

Table 1. Results of factor analysis and reliability of measurement items.

Variables		Item	Factor Loading	Eigenvalue after Rotation	Description Dispersion (Cumulative) %	Cronbach's Alpha
HRM investment		HI 1	0.663	4.849	26.94%	0.910
		HI 2	0.743			
		HI 3	0.757			
		HI 4	0.778			
		HI 5	0.759			
		HI 6	0.815			
		HI 7	0.769			
		HI 8	0.773			
Firm performance		Perform 1	0.886	2.620	41.49%	0.809
		Perform 2	0.846			
		Perform 3	0.670			
		Perform 4	0.670			
Competitive strategy implementation *	Differentiation strategy	DS 1	0.745	2.289	54.21%	0.761
		DS 2	0.785			
		DS 3	0.783			
	Cost leadership strategy	CLS 1	0.796	2.031	65.49%	0.736
		CLS 2	0.736			
		CLS 3	0.800			

* Using K-means clustering with competitive strategy implementation values, strategy implementation variables for the following four types were created: ambidextrous, cost leadership, differentiation, and 'stuck in the middle'.

On the other hand, because the study variables represent results collected from the same respondent, common method bias may exist due to internal theory and the motivation to maintain consistency. As a preliminary measure to overcome this limitation, anonymity was emphasized and explained to the participants when the survey was conducted, and they were informed that the survey results would be used only for research purposes and that there were no right or wrong answers. In addition, as a post hoc measure, we conducted Harman's single-factor test to confirm the impact of any problems caused by common method bias on the results [52]. As a result of the verification, we found that among the factors with an eigenvalue of 1 or more, the factor with the greatest explanatory power accounted for 35.228% of the total variance, which did not exceed 50% of the total variance, and all remaining factors accounted for 30.266% of the total variance. Therefore, in this study, we can judge that the research sample was not seriously affected by common method bias.

3.4. Data Analysis

This study assessed the representation of the associations between the HRM investment categories, strategy implementation categories, and firm performance categories via multiple correspondence analysis (Table 2). This method of analysis facilitates the efficient and intuitive examination of the internal structure, relationships, and correspondence among categorical variables. Unlike conventional multivariate analysis, multiple correspondence analysis does not depend on assumptions regarding data distribution. Instead, it depicts the relationships among categorical variables through row and column profiles. These profiles are visualized as points in a reduced-dimensional space to provide a clear and succinct representation of the variables' connections, associations, and correspondence. In this study, the data were analyzed using SPSS version 27.0.

Table 2. Categorized variables derived through K-means clustering.

Categorized Variables	Final Centroid	Frequency	Category Label
HRM investment	2.83	65	Weak HRM
	3.65	119	Moderate HRM
	4.38	40	Strong HRM
Firm performance	2.86	57	Low performance
	3.63	138	Moderate performance
	4.57	29	High performance
Strategy implementation	4.36, 3.88 *	54	Ambidextrous strategy
	3.38, 2.88	56	Cost leadership
	3.34, 3.72	81	Differentiation
	2.24, 2.81	33	Stuck in the middle

* Centroids are presented in the order of cost leadership and differentiation.

4. Results

4.1. Result of Analysis

The number of dimensions set for the multiple correspondence analysis was determined to be two after we subtracted one from the smaller number of rows or columns corresponding to HRM investment (strong, moderate, weak) or firm performance (high, moderate, low). To ensure the validity of the dimension setting, we reviewed the singular value and cumulative explanatory power (inertia). The multiple correspondence analysis revealed that the cumulative explanatory power was 93%, with the number of dimensions set to two, which confirmed the validity of representing the results in a two-dimensional space. Generally, the explanatory power of two dimensions must be at least 70% to be considered a good explanation of the relationship between rows and columns (Table 3).

Table 3. Dimensionality.

Dimension	Cronbach's Alpha	Eigenvalue	Proportion Explained [1]	Cumulative Proportion
1	0.504	1.507	0.502	0.502
2	0.333	1.285	0.428	0.930

[1] Inertia.

The perceptual map in Figure 1 illustrates the graphical output generated by the multiple correspondence analysis of the data. This map reveals the underlying structure and positioning of HRM investment, strategy implementation, and firm performance.

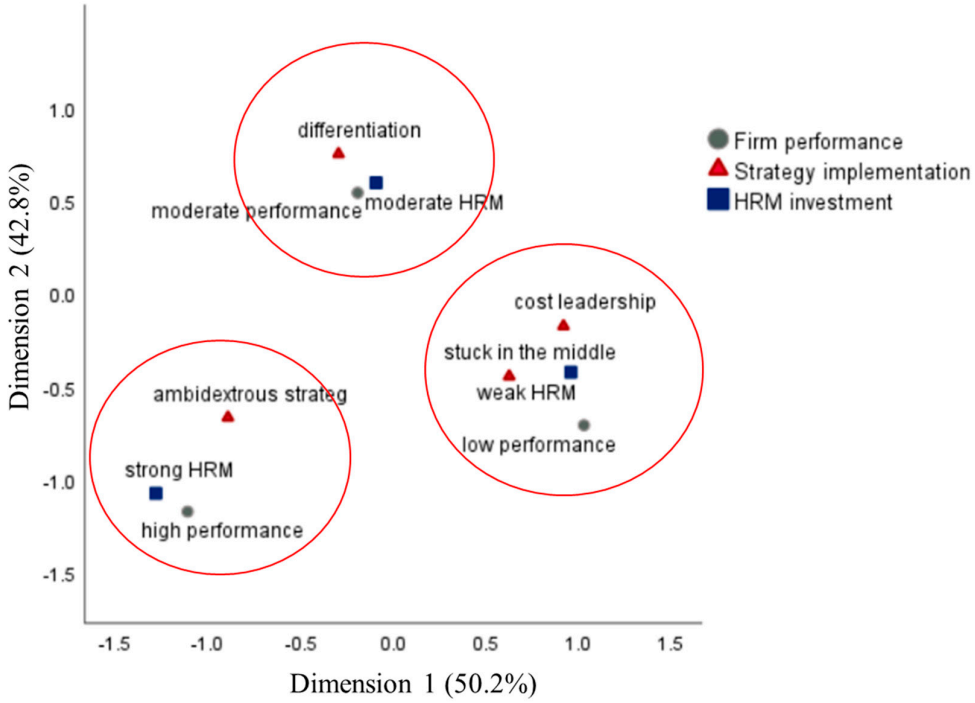

Figure 1. Multiple correspondence analysis results between HRM investment, strategy implementation, and firm performance.

This perceptual map provides visual information about how the detailed categories of HRM investment, strategy implementation, and firm performance are respectively positioned. HRM investment, strategy implementation, and firm performance were clustered together by each category attribute. First, strong HRM investment was positioned close to ambidextrous strategy and high performance in an area quite separate from the remaining category attributes. Next, moderate HRM investment, differentiation strategy, and moderate performance were closely related, forming another cluster. Finally, weak HRM investment clustered closely with the category attributes of cost leadership strategy, stuck in the middle, and low performance.

4.2. Robustness Check

Based on Korea's Framework Act on Small and Medium Enterprises, this study selected SMEs with 300 or fewer employees and were not included in the large enterprise criteria, excluding micro-enterprises with five or fewer employees. Nevertheless, the HRM capabilities of very small and too young firms (e.g., six employees or two years old) were likely to differ from those of relatively large firms.

Therefore, to further explore the primary analysis results, we conducted a robustness test with additional multiple correspondence analysis targeting a sample of firms above

the median in size and age. Table 4 presents descriptive statistics on the size and age of the sample firms. The median is a better measure of central tendency in biased datasets and is unaffected by extreme values, making it a more robust measure than the mean.

Table 4. Descriptive statistics related to firm size and age of research sample.

Title 1	Firm Size [1]	Firm Age
Mean	43.31	15.10
Median	24.50	12.00
Standard Deviation	47.51	11.30
Min	6	2
Max	240	59 [1]

[1] Number of employees.

Additional analysis, as shown in Table 5 and Figure 2, confirmed the consistent patterns and associations between variables and verified the robustness of the primary analysis. This was evident in the analysis of firms above the median regarding size (Figure 2a) and age (Figure 2b), thereby supporting the hypothesis.

Table 5. Dimensionality from conducting additional multiple correspondence analyses.

Analysis Target	Dimension	Cronbach's Alpha	Eigenvalue	Proportion Explained [1]	Cumulative Proportion
Large-sized firms	1	0.568	1.609	0.536	0.536
	2	0.393	1.354	0.451	0.988
Old firms	1	0.565	1.605	0.535	0.535
	2	0.297	1.247	0.416	0.951

[1] Inertia.

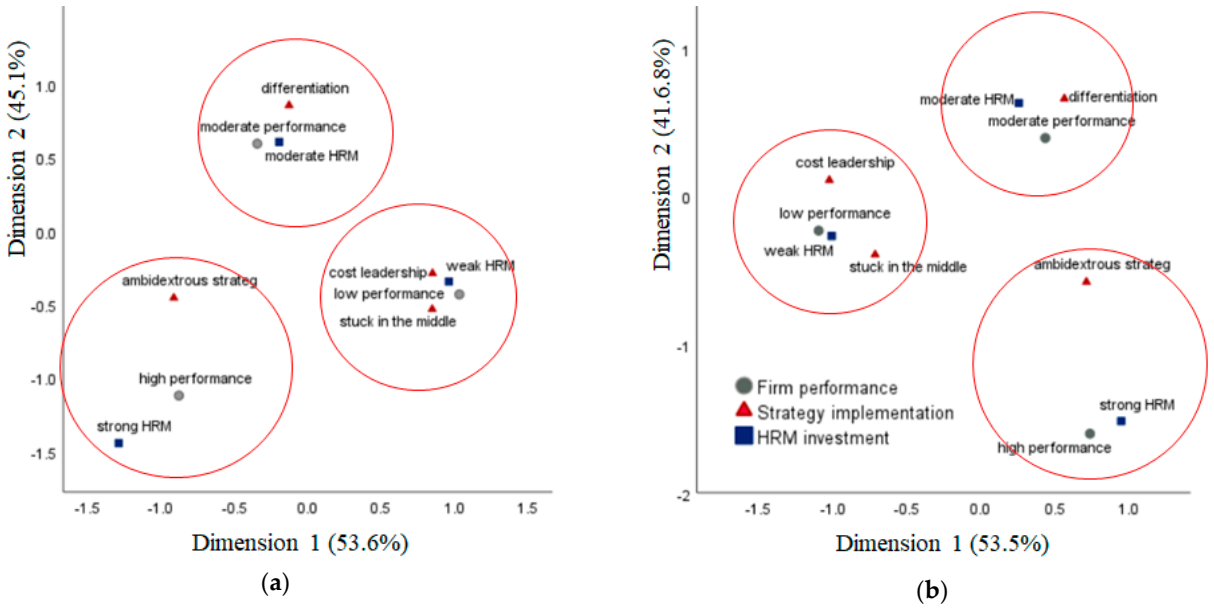

Figure 2. Additional multiple correspondence analysis results for robustness check. (**a**) Analysis results for relatively largesized firms above median of firm size (n = 112). (**b**) Analysis results for relatively old firms above median firm age (n = 118).

5. Discussion

Contrary to existing studies that have sought to determine the best HRM system or identify an appropriate way to combine the competitive strategy and HRM systems,

this study examines the overlooked relationship between HRM and firm performance. To do so, we applied an exploratory approach focusing on strategy implementation and investment in HRM systems, the latter of which can be leveraged to develop the organizational capabilities that enable strategy implementation. Specifically, this study analyzes the relationships between the level of HRM investment, the level of competitive strategy implementation, and firm performance, targeting Korean SMEs. As a result, we found that the ambidextrous-strategy implementation group and the high-performance group are homogeneous, with strong HRM investment, cost leadership strategy, and differentiation strategy all implemented at a high level. In addition, a moderate level of HRM investment is related to a differentiation strategy and moderate performance, while weak HRM investment is related to a cost leadership strategy, a 'stuck-in-middle' strategy, and low performance.

5.1. Theoretical and Managerial Implications

Based on these results, this study's implications in terms of the RBV's contributions to HRM to ensure corporate sustainability are as follows:

First, the creation and sustainment of a firm's competitive advantage depend on the level of construction of strategic assets, such as a firm's unique HRM system. From the RBV, there is a limitation in that a firm's competitive advantage created through intangible organizational capabilities can only be confirmed ex-post through final performance. In this regard, this study's findings provide evidence for the RBV by demonstrating that building organizational capabilities around intangible core resources such as the HRM system is effective for gaining a sustainable competitive advantage. A firm's investment in HRM does not create an ideal HRM system with immediate effects, nor do the effects appear incrementally in proportion to the level of investment. For companies that need to build firm-specific assets based on resources that cannot be traded in the strategic factor market to create a competitive advantage, accumulating strategic assets itself is critical. The construction of an effective HRM system is shaped by the specific historical trajectory within a particular company (path-dependence), which makes it challenging to ascertain causal relationships (causal ambiguity). Moreover, the social relationships established among organizational members are intricate and complex (social complexity). Consequently, the construction of an effective HRM is highly dynamic and time-consuming [3,7,9]. Therefore, for a firm to convert human resources into strategic assets, continuous investment in HRM is required in the long term to ensure that the available resources can eventually be translated into organizational capabilities. In particular, because SMEs have relatively insufficient physical resources compared to large firms, accumulating organizational capabilities by investing in the company's human resources may be more effective for securing a competitive advantage.

Second, this study's results suggest that a high level of HRM investment can lead to high management performance by enabling the effective implementation of multiple strategies. In other words, strategy implementation can be essential in the relationship between HRM systems and firm performance. The existing research has generally assumed that establishing an excellent strategy and deploying appropriate HRM functions will lead to high performance. Accordingly, the contingent fit hypothesis between the HRM system and competitive strategy has not produced consistent empirical results. Due to the uncertainty of the dynamic and hypercompetitive corporate environment, attributes such as simple low costs and differentiation are no longer factors that can individually secure a competitive advantage. Indeed, the strategies for surviving a hurricane are different from the strategies for surviving solid winds [53]. When faced with extreme uncertainty, today's companies must have the ability to implement contradictory strategies simultaneously, such as cost leadership and differentiation advantage, to secure performance and ensure sustainability, even during environmental changes [54]. Strategic HRM is not about designing a system to pursue one type of strategy, but rather building a competency base to support the effective implementation of multiple strategic dimensions. Of course, these

results cannot support the universal perspective [13] that the best HRM system exists independently of the firm's context. In other words, the content of the bundle or system of HRM that is effective for firm performance varies from study to study [7]. Nevertheless, the results of this exploratory study reveal that a company's investment in HRM continues at a high level until it reaches a critical point where human resources can be translated into unique organizational capabilities that can effectively support strategy implementation.

5.2. Limitations and Future Research

It is essential to note the limitations of this study, which was conducted in an exploratory fashion. First, the primary limitation is the need for a clear causal relationship between HRM investment, strategy implementation, and firm performance, as this relationship may follow a reverse rather than sequential causality [55]. In other words, high-performance firms may invest more in HRM because of their surplus resources. However, although this issue is valid in one respect, it is highly likely that the relationship between HRM and firm performance is not one-way, but rather involves a two-way, reciprocal causation [11]. In this regard, no consensus has yet been formed. Therefore, to ensure the robustness of this study's results, follow-up studies should address the problem of reverse causality by controlling prior performance before the point of analysis.

Second, there are concerns about the appropriateness of the level of analysis for this study's variables. Although this study focuses on implementing a competitive strategy at the business-unit level, HRM at a functional level can have a close relationship with a competitive strategy, as it supports a competitive strategy at the business-unit level. However, in a firm with multiple business units, there may be differences between the performance of individual business units and that of the corporate level. Nevertheless, most of the SMEs targeted in this study are single-business enterprises, and only a few SMEs comprised multiple business units. Corporate and business-unit strategies have the same meaning in these SMEs, and the same HRM may apply throughout the firm. Therefore, this study's attempt to propose a competitive strategy as a standard for strategy implementation and connect it to firm performance is valid. When applying strategic concepts related to HRM investment, future research must appropriately classify and reflect performance at the business-unit or corporate level, according to the firm's characteristics.

Funding: This work was supported by Kyonggi University Research Grant 2023.

Institutional Review Board Statement: The study did not require an institutional review board declaration. This research dataset is targeted at the corporate level. It results from a survey of corporate activities without collecting personal or sensitive information from respondents, so there are no ethical concerns when using it for research purposes.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the survey through a credible institution.

Data Availability Statement: The data presented in this study are not publicly available due to privacy.

Acknowledgments: This study is an addition based on feedback received from colleagues following the author's presentation at the Korean Strategic Management Association Spring Conference in 2022.

Conflicts of Interest: The author declares no conflicts of interest.

Appendix A

(Questionnaire Items of Key Variables)
HRM Investment [11,47] Eight Items Selected.

1. Efforts for Superior Talent Recruitment
2. Appropriate Treatment for Capable Employees
3. Democratic Handling of Business-Related Decisions
4. Inclusion of Employee Suggestion Ideas
5. Support for Employee Learning and Skill Development

6. Building Trust between Management and Employees
7. Effective Operation of Profit Distribution and Bonus Systems
8. Adequate Compensation for Employees during Company Growth

Competitive Strategy Implementation [48,49].
Differentiation Strategy Three Items Selected.

1. Development of New Products First in Domestic Market
2. Securing Expert Technicians
3. Improving Product Quality

Cost Leadership Strategy Three Items Selected.

1. Inventory Maintenance Efforts to Maintain Competitive Edge
2. Strategic Cost-Cutting Efforts
3. Degree of Diversification of Production Product Line

Firm Performance [50,51] Four Items Selected.

1. Three-Year Increase in Sales Compared to Competitors
2. Three-Year Increase in Operating Profit Compared to Competitors
3. Technological Advantage over Competitors in Past Three Years
4. Customer Satisfaction Compared to Competitors in Past Three Years

References

1. Amit, R.; Schoemaker, P.J. Strategic assets and organizational rent. *Strateg. Manag. J.* **1993**, *14*, 33–46. [CrossRef]
2. Wright, P.M.; McMahan, G.C. Theoretical perspectives for strategic human resource management. *J. Manag.* **1992**, *18*, 295–320. [CrossRef]
3. Barney, J.B. Firm resources and sustained competitive advantage. *J. Manag.* **1991**, *17*, 99–120. [CrossRef]
4. Pfeffer, J. *Competitive Advantage through People*; Harvard Business School Press: Boston, MA, USA, 1994.
5. Barney, J.B.; Wright, P.M. *On Becoming a Strategic Partner: The Role of Human Resources in Gaining Competitive Advantage*; Human Resource Management; The School of Business Administration, The University of Michigan: Ann Arbor, MI, USA; Society of Human Resources Management: Alexandria, VA, USA, 1998; Volume 37, pp. 31–46.
6. Arthur, J.B. Effects of human resource systems on manufacturing performance and turnover. *Acad. Manag. J.* **1994**, *37*, 670–687. [CrossRef]
7. Becker, B.; Gerhart, B. The impact of human resource management on organizational performance: Progress and prospects. *Acad. Manag. J.* **1996**, *39*, 779–801. [CrossRef]
8. Bowen, D.E.; Ostroff, C. Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. *Acad. Manag. Rev.* **2004**, *29*, 203–221.
9. Lado, A.A.; Wilson, M.C. Human resource systems and sustained competitive advantage: A competency-based perspective. *Acad. Manag. Rev.* **1994**, *19*, 699–727. [CrossRef]
10. MacDuffie, J.P. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *ILR Rev.* **1995**, *48*, 197–221. [CrossRef]
11. Becker, B.E.; Huselid, M.A. Strategic human resources management: Where do we go from here? *J. Manag.* **2006**, *32*, 898–925. [CrossRef]
12. Collins, C.J.; Clark, K.D. Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. *Acad. Manag. J.* **2003**, *46*, 740–751. [CrossRef]
13. Delery, J.E.; Doty, D.H. Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Acad. Manag. J.* **1996**, *39*, 802–835. [CrossRef]
14. Schuler, R.S. Strategic human resources management: Linking the people with the strategic needs of the business. *Organ. Dyn.* **1992**, *21*, 18–32. [CrossRef]
15. Snell, S.A.; Youndt, M.A.; Wright, P.M. Establishing a framework for research in strategic human resource management: Merging resource theory and organizational learning. *Res. Pers. Hum. Resour. Manag.* **1996**, *14*, 61–90.
16. Becker, B.E.; Huselid, M.A. *Human Resources Strategies, Complementarities, and Firm Performance*; SUNY Buffalo: Buffalo, NY, USA, 1998.
17. Huselid, M.A. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Acad. Manag. J.* **1995**, *38*, 635–672. [CrossRef]
18. Way, S.A. High performance work systems and intermediate indicators of firm performance within the US small business sector. *J. Manag.* **2002**, *28*, 765–785. [CrossRef]
19. Pil, F.K.; MacDuffie, J.P. The adoption of high-involvement work practices. *Ind. Relat. A J. Econ. Soc.* **1996**, *35*, 423–455. [CrossRef]

20. Guest, D.; Bos-Nehles, A. Human resource management and performance: The role of effective implementation. In *Human Resource Management and Performance: Achievements and Challenges*, 5th ed.; Wiley: Hoboken, NJ, USA, 2013; pp. 79–96.
21. Bamberger, P.; Biron, M.; Meshoulam, I.; Meshoulam, I. Diversity and intergenerational strategies. In *Human Resource Strategy: Formulation, Implementation and Impact*; Routledge: London, UK, 2014; pp. 196–214.
22. Barney, J.B. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *J. Manag.* **2001**, *27*, 643–650. [CrossRef]
23. Ulrich, D. *Human Resource Champions: The Next Agenda for Adding Value and Delivering Results*; Harvard Business Press: Cambridge, MA, USA, 1997.
24. Penrose, E.T. *The Theory of the Growth of the Firm*; Sharpe: New York, NY, USA, 1959.
25. Wernerfelt, B. A resource-based view of the firm. *Strateg. Manag. J.* **1984**, *5*, 171–180. [CrossRef]
26. Porter, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*; Free Press: New York, NY, USA, 1980.
27. Porter, M.E. The contributions of industrial organization to strategic management. *Acad. Manag. Rev.* **1981**, *6*, 609–620. [CrossRef]
28. Porter, M.E. *The Competitive Advantage: Creating and Sustaining Superior Performance*; Free Press: New York, NY, USA, 1985.
29. Barney, J.B. Strategic factor markets: Expectations, luck, and business strategy. *Manag. Sci.* **1986**, *32*, 1231–1241. [CrossRef]
30. Dierickx, I.; Cool, K. Asset stock accumulation and sustainability of competitive advantage. *Manag. Sci.* **1989**, *35*, 1504–1511. [CrossRef]
31. Nelson, R.R. *An Evolutionary Theory of Economic Change*; Belknap Press/Harvard University Press: Cambridge, MA, USA, 1982.
32. Grant, R.M. Toward a knowledge-based theory of the firm. *Strateg. Manag. J.* **1996**, *17*, 109–122. [CrossRef]
33. Wright, P.M.; McMahan, G.C.; McWilliams, A. Human resources and sustained competitive advantage: A resource-based perspective. *Int. J. Hum. Resour. Manag.* **1994**, *5*, 301–326. [CrossRef]
34. Coff, R.W. Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Acad. Manag. Rev.* **1997**, *22*, 374–402. [CrossRef]
35. Dess, G.G.; Shaw, J.D. Voluntary turnover, social capital, and organizational performance. *Acad. Manag. Rev.* **2001**, *26*, 446–456. [CrossRef]
36. Ployhart, R.E.; Van Iddekinge, C.H.; MacKenzie, W.I., Jr. Acquiring and developing human capital in service contexts: The interconnectedness of human capital resources. *Acad. Manag. J.* **2011**, *54*, 353–368. [CrossRef]
37. Schuler, R.S.; Jackson, S.E. Linking competitive strategies with human resource management practices. *Acad. Manag. Perspect.* **1987**, *1*, 207–219. [CrossRef]
38. Bae, J.; Lawler, J.J. Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Acad. Manag. J.* **2000**, *43*, 502–517. [CrossRef]
39. Hambrick, D.C. Some tests of the effectiveness and functional attributes of Miles and Snow's strategic types. *Acad. Manag. J.* **1983**, *26*, 5–26. [CrossRef]
40. Cappelli, P.; Singh, H. Integrating strategic human resources and strategic management. In *Research Frontiers in Industrial Relations and Human Resources*; Lewin, D., Mitchell, O.S., Sherer, P.D., Eds.; Cornell University Press: Ithaca, NY, USA, 1992; Volume 165, p. 192.
41. Choo, S.; Limb, S.J. Environment and Organizational Ambidexterity as a Multi-Dimensional Concept: Performance Implication. *J. Strat. Manag.* **2014**, *17*, 79–108.
42. Limb, S.J.; Park, J.K. Is Hybrid Competitive Strategy Working? *Kor. Cor. Manag. Rev.* **2015**, *22*, 65–86.
43. Pertusa-Ortega, E.M.; Molina-Azorín, J.F.; Claver-Cortés, E. Competitive strategies and firm performance: A comparative analysis of pure, hybrid and 'stuck-in-the-middle'strategies in Spanish firms. *Brit. J. Manag.* **2009**, *20*, 508–523. [CrossRef]
44. Hill, C.W. Differentiation versus low cost or differentiation and low cost: A contingency framework. *Acad. Manag. Rev.* **1988**, *13*, 401–412. [CrossRef]
45. Pfeffer, J. *The Human Equation: Building Profits by Putting People First*; Harvard Business Press: Cambridge, MA, USA, 1998.
46. Shortell, S.M.; Zajac, E.J. Perceptual and archival measures of Miles and Snow's strategic types: A comprehensive assessment of reliability and validity. *Acad. Manag. J.* **1990**, *33*, 817–832. [CrossRef]
47. Shaw, J.D.; Gupta, N.; Delery, J.E. Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Acad. Manag. J.* **2005**, *48*, 50–68. [CrossRef]
48. Dess, G.G.; Davis, P.S. Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance. *Acad. Manag. J.* **1984**, *27*, 467–488. [CrossRef]
49. Miller, D. Relating Porter's business strategies to environment and structure: Analysis and performance implications. *Acad. Manag. J.* **1988**, *31*, 280–308. [CrossRef]
50. Dess, G.G.; Robinson, R.B., Jr. Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strateg. Manag. J.* **1984**, *5*, 265–273. [CrossRef]
51. Pearce, J.A.; Robbins, D.K.; Robinson, R.B., Jr. The impact of grand strategy and planning formality on financial performance. *Strateg. Manag. J.* **1987**, *8*, 125–134. [CrossRef]
52. Podsakoff, P.M.; Organ, D.W. Self-reports in organizational research: Problems and prospects. *J. Manag.* **1986**, *12*, 531–544. [CrossRef]
53. D'aveni, R.A. *Hypercompetition*; Free Press: New York, NY, USA, 1994.

54. Auh, S.; Menguc, B. Balancing exploration and exploitation: The moderating role of competitive intensity. *J. Bus. Res.* **2005**, *58*, 1652–1661. [CrossRef]
55. Wright, P.M.; Gardner, T.M.; Moynihan, L.M.; Allen, M.R. The relationship between HR practices and firm performance: Examining causal order. *Pers. Psychol.* **2005**, *58*, 409–446. [CrossRef]