



Article

Linking Leadership to Employees Performance: The Mediating Role of Human Resource Management

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Abstract: Human resource management (HRM) practices along with appropriate leadership have a paramount role in enhancing employees' performance. Even though there was much literature on the subject of HRM and leadership, there were still some unanswered questions about the set of HR practices that most effectively contribute to improved employees' performance through proper leadership. The primary goal of this research was to look at how leadership quality affects employee performance, as well as the function of human resource management in mediating the relationship between leadership and employee performance in manufacturing industries in Addis Ababa, Ethiopia. The study used an explanatory and descriptive research design, and a mixed research approach (qualitative and quantitative), to achieve its goal. More specifically, a multi-stage sampling technique (simple random and purposive sampling) was employed. The data was collected from both primary and secondary sources, and analysis was made using a structural and measurement model by AMOS Version 2021. The finding of the study implies that; leadership has a positive and significant relationship with employee performance through human resource management, hence the full mediating role of human resource management was observed between leadership and employee performance. This study is novel in that, it contributes new finding to the existing literature by combining the relationship between leadership and employee performance in a single study and two different directions (direct and indirect). Hence, the recommendations can be applied by industry managers to boost employees' performance through appropriate HRM practices and leadership by taking this finding as a benchmark. Based on the finding of the study, we recommend industry managers focus on human resource management indicators such as collaboration, involvement, actualization, perceivance, and teamwork to boost their leadership quality that deliberately influences employees' performance.

Keywords: HRM practice; leadership indicators; employees' performance; manufacturing industry



Citation: Siraj, Nuru, István Hágén, Afriyadi Cahyadi, Anita Tangl, and Goshu Desalegn. 2022. Linking Leadership to Employees Performance: The Mediating Role of Human Resource Management. *Economies* 10: 111. <https://doi.org/10.3390/economies10050111>

Received: 15 April 2022

Accepted: 6 May 2022

Published: 11 May 2022

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1. Introduction

Nowadays, the world is moving towards an economy in which organizational knowledge is the most important resource (Hermans 2010; Kwon et al. 2013). As a result, workers must be kept up to speed on new professional abilities and information regularly to maintain the standardized expertise required to execute the task. Many researchers have looked into leadership styles to see how they affect employee performance (Scuotto et al. 2022). Employees are more credible and motivated to perform well when leaders give them autonomy. This increases the organization's productivity and improves performance (Kloutsiniotis et al. 2022). Competent human resources are required to generate innovative ideas (Opland et al. 2022). To generate innovative ideas, leadership is critical (Kloutsiniotis et al. 2022). To motivate employees and assure the success of quality improvement projects, all theories of total quality management emphasize the importance of senior management leadership styles (Barua 2021).

New interest in HRM as a strategic lever that can have a major economic impact on an organization's performance attempts to move the focus more toward value creation and illustrates that HRM contributes directly to the achievement of operational and corporate strategic goals (Kim 2010). Much empirical research on the relationship between human resource management and performance concludes that "human resource management matters" (Bello-Pintado 2015; Hermans 2010). In general, the HR practices that employees perceive or experience are those developed by their managers, according to the literature on human resource management (Bello-Pintado 2015; Benbahia and Raj a 2019; Cristiani and Peir  2019). Supervisors must apply well-designed HR practices in their management operations to have a beneficial impact on employee work results. Duvnjak and Kohont (2021) stressed the critical role of supervisors in implementing expected human resource management rules, noting that disparities in implementation at this level may be due to supervisors' differing leadership styles.

The majority of HRM research (Benbahia and Raj a 2019) focuses on the positive impact of HRM systems and practices on organizational performance. Create favorable conditions for generating resources that create value for the organization, and perform and sustain the organization (Haldorai et al. (2022); Agarwal et al. (2022) and Correia et al. (2013)). However, such good outcomes have long been focused on asserting that HRM may contribute positively to the business (Barba-Arag n and Jim nez-Jim nez 2020). Some researchers believe that performance has improved, but that relationships are often statistically weak, that results are sometimes confusing, and that study design is frequently insufficient (Cristiani and Peir  2019; Wikhamn 2019).

Fry and Kriger (2009) looked at leadership as a motivator for change and found that to excite employees, leaders should embrace fundamental principles and convey them more smoothly and efficiently. Furthermore, leaders with skills such as communicating, designing, anticipating, assessing, and visioning can assist people to redefine their values by fostering both personal and organizational change, allowing them to outperform their expectations.

The expansion of the manufacturing sector within the industry is critical for building national technological capacity, and industrial capability, creating broad-based job opportunities and improving income. Furthermore, the development of the manufacturing industry contributes to the overall economy's total factor productivity and competitiveness, as well as its trickledown effect up and down the supply chain. Because the country has several comparative advantages, and to strengthen its competitiveness, the Ethiopian government provided a variety of incentives for the growth of the manufacturing sector (Eshetie 2018).

According to the World Bank's collection of development indicators compiled from officially recognized sources, manufacturing value added (percent of GDP) in Ethiopia was reported at 5.3039 percent in 2020. Ethiopia's manufacturing sector helps with exports, employment, and national output. The industrial sector accounts for 70% of the total. The agro-processing subsector (food and beverage subsector hereinafter) is the largest within the manufacturing sector, accounts for 36% of the total gross value of production (GVP) and 38% of the value-added at the basic price (VAMP) of the large and medium scale manufacturing industry, as cited by (Addis 2019).

Manufacturing activities can range from simple to complex. A manufacturing operation involves several steps: sourcing of raw materials; preliminary processing, production, and assembly; quality control and testing; labeling and packaging; distribution/transportation; post-sale follow-up. To enable this manufacturing process requires several support functions: research and development (R&D) and product design; human resources; tax; environment, health and safety (EH&S); marketing and sales; governance/executive leadership (Tang 2019). Therefore, it's so important to study the role of HRM practices in leadership and employees' performance relationships.

It is widely acknowledged that a competitive and private-sector-led manufacturing sector is critical to the economy's socio-economic transformation as well as the sector's overall development. It is also the heart and soul of many economies in both developed

and developing countries, with the highest multiplier effect of any other sector (Rao and Tesfahunegn 2015).

According to Growth (2016), during the first Growth and Transformation Plan period, the value-added of medium and large-scale manufacturing industries grew at an average rate of 19.2 percent per year, while micro and small industries grew at a rate of 4.1 percent per year. The manufacturing industry's growth performance, which is a key indicator of the degree of structural transformation in the economy, was lower than the plan period's target.

The poor growth performance of the micro and small-scale manufacturing industries, as well as delays in the implementation of large manufacturing projects, were major contributors to the overall manufacturing sector's slow growth (Gebreyohannes 2015). As a result, proper implementation and consolidation of micro and small-scale enterprise development strategies are critical to unleashing the sector's potential in revitalizing local economic development, nurturing entrepreneurship, and addressing unemployment and poverty.

Again according to Growth (2016), the main reason for Ethiopia's low performance in the medium and large-scale manufacturing sector during the first growth and transformation plan is a lack of attracting a large number of new and quality export-oriented private investments in the manufacturing sector. This is highly related to inefficient leadership and human resource practices. Hence, Organizations having much better skilled and creative employees can easily avoid wasteful investment to improve the efficiency and performance of the organization. In this case, the leadership and human resource practices play a great role to have skillful and competent employees to achieve the goal efficiently.

Leaders, on the other hand, were less skilled in areas involving collaboration, such as "creating collaborative relationships" and "leading people in manufacturing industries in Ethiopia than agricultural, construction, and tourist industries" (Berhe 2021). Therefore, like other organizations, effective leadership is critical for manufacturing companies in Ethiopia. Ethiopia currently ranks 126th out of 140 countries for business efficiency, judging by criteria such as institutional; infrastructure; ICT adoption; macroeconomic stability; health; skills; product markets; labor markets; financial system; market size; commercial dynamism; capacity to innovate (Shapiro et al. 2015), whose exports are almost exclusively agricultural (coffee is the main source of foreign exchange earnings; other exports include coffee, hides, live animals, oilseeds, and gold). Ethiopia must improve this ranking and become more competitive in the global environment by producing high-quality standard products for export. Besides, the research result conducted by (Ali et al. 2018), indicates that human resource management has a positive impact between leadership and employees' performance by recruiting, training, and evaluating performance, and giving compensation to companies that apply the ability to collaborate and work in teams in achieving organizational goals.

In general, despite increased research into the leadership-performance relationship, there are many problems and gaps in existing studies. No clear picture has emerged. There is a lack of integration concerning the relationship between leadership and performance, a narrow set of variables has been used in previous studies, and of course, some important mediating variables affecting the leadership-performance relationship but like human resource management practices such as collaboration, involvement, actualization, perceivance, and teamwork have been ignored even if they are directly affecting the performance of employees. Besides on this the research conducted by many scholars such as Wright and Gardner (2003) and de Brito and de Oliveira (2016) focused only on the relationship between leadership styles and performance. In this case, leadership indicators such as communicating, designing, predicting, assessing, and visioning were missed. These variables also have a direct impact on employees' performance.

Therefore, 14 research propositions have been developed throughout this paper to guide further research into addressing these problems.

That's why we were motivated to research to understand the role of human resource management between leadership and performance in Ethiopian manufacturing companies. In this sense, this article investigated the mediating role of human resource management (HRM) to enhance the relationship between leadership and employees' performance. The article explores classical and contemporary literature findings and analyzes available empirical data to attempt to formulate a synthesis of existing research. That is why we set out to investigate the function of human resource management in the relationship between leadership and performance in Ethiopian manufacturing industries. In this regard, the role of human resource management (HRM) in mediating the relationship between leadership and employee performance was studied in this paper.

2. Review of Related Literature and Hypothesis

2.1. Leadership and Employees' Performance

Leadership is the ability of an individual or a group of individuals to influence and guide followers or other members of an organization and involves making sound and sometimes difficult decisions, creating and articulating a clear vision, establishing achievable goals, and providing followers with the knowledge and tools necessary to achieve those goals. In this case, to make the leader's duties easier and smooth the practices of human resource management play a vital role in enhancing employees' performance (Kotterman 2006).

Leadership styles have different effects on employee attitudes and behavior, either directly or indirectly. According to the research conducted by Quantz et al. (1991), transformative leadership conduct is positively associated with employee performance, but transactional leadership style is usually negatively linked to long-term performance. Staff self-efficacy, motivation, creativity, and organizational efficiency all benefit from transformative leadership (Kloutsiniotis et al. 2022; Mekhum 2020). Transactional leadership, on the other hand, has been shown to boost job satisfaction and organizational identity when compared to revolutionary leadership (Leigh et al. 2021). Leaders that are transformational assist others in adapting to organizational changes (Zumitzavan 2014).

Many research findings show that, if both transformational and transactional leadership styles are used effectively, they can influence employee attitudes toward their leaders, job performance, and organizational productivity. There is a lot of evidence to suggest that leaders who combine transformational and transactional leadership styles are more effective. Leaders that are inactive or utilize a laissez-faire leadership style, on the other hand, are seen as the least effective and hurt the performance results and productivity of their followers (Benbahia and Rajaa 2019). The research shows that the leader's leadership style has a direct impact on employee behavior, which is why group performance and goal achievement are linked. It inspires people to work harder at their tasks and makes them believe their leaders are competent. Transformational leadership, according to the research, has a substantial positive association with followers' propensity to go the extra mile (Kloutsiniotis et al. 2022; Scuotto et al. 2022). This is further proved by the fact that going above and beyond the call of duty helps leaders be more productive and improves the organization's overall success. (Zumitzavan 2014) the research found that different leadership styles when used by leaders, result in varying levels of employee willingness to put in the extra effort. The following hypothesis was established to investigate the same link in Ethiopian situations and to support the idea's universality.

Hypothesis 1 (H1). *Leadership has a positive and significant effect on employee performance.*

2.2. Human Resource Management and Performance

An awful lot has been written about the significance of investigating the process using which HRM and overall performance may be related, however, this exhortation has now not been matched via a parallel frame of studies. (Kloutsiniotis et al. 2022), for example, observed a hyperlink among multiplied use of HRM and more remarkable employee

attitudes but did not link the attitudes to performance. [Teo et al. \(2021\)](#) discovered a link between HRM and commitment and between HRM and performance; however, commitment did not mediate the link between HRM and performance. Employee attitudes and behavior are thought to be influenced by a combination of HR strategies that increase competence, motivation, contribution possibilities, and commitment to the firm. Additional benefits could result from increased contact and knowledge sharing. If HR policies have a beneficial influence, they will show up in behaviors such as reduced absenteeism and labor turnover, high-quality goods and services, and increased employee productivity. At least within-sector comparisons, this should result in relatively higher sales and profitability, assuming all other factors are similar. There is currently no strong evidence that HRM improves employees' competence, motivation, opportunity to participate, and commitment.

There has also been some controversy over whether HRM is primarily employed to improve performance, i.e., as a type of performance management that improves efficiency, or primarily to increase employee involvement and commitment. The pursuit of the "low road" or the "high road" to increased performance has been defined as "hard" and "soft" HRM ([Kwon et al. 2013](#)). WERS2004, on the other hand, is less well suited to assess employee behavior because data is only collected indirectly and at the workplace level, through management accounts of proximal performance measures such as absence and employee turnover. Finally, the examination of the relationship between HRM and performance raises several unanswered problems. The nature and measurement of HRM, as well as the environment in which it is employed, performance measurement, and the mechanism by which HRM and performance may be related, are all discussed. WERS2004 is in a strong position to address some of these issues.

Although empirical data on HRM and performance have been published in several special issues of international academic journals ([Bello-Pintado 2015](#)), there are still some questions about the set of HR practices that contribute most effectively to greater organizational performance ([Saridakis et al. 2017](#)). Furthermore, while a collection of best HRM practices that can improve performance can be established, little is known about the interrelationships between the various practices, raising the possibility of additive, synergistic, or substitution impacts ([Zhou et al. 2020](#)). The concept of excellent human resource practices appears to have arisen from the first study line ([Oubrich et al. 2021](#)). However, there is no consensus on which activities should be included in these systems, therefore surveys with different sets of practices have been performed ([Tarba et al. 2021](#)). The present empirical data on the link between HRM and employee performance, according to ([Stahl et al. 2020](#)), is still inconclusive, and [Oubrich et al. \(2021\)](#), illustrate that a link between HRM and performance should be viewed with care. The following hypothesis was generated to explore the link between HRM and employees' performance in an Ethiopian context.

Hypothesis 2 (H2). *HRM has a positive and significant effect on employee performance.*

2.3. The Mediating Role of HRM to Leadership and Employees' Performance

HRM is expected to mediate the interaction between leadership and employees' performance in the following ways. Transformational leaders have a strong vision for what the organization will become and do in the future ([Islam et al. 2021](#)). A considerably enhanced firm and/or a better way of conducting business are part of this concept. Leaders must have an innovative vision, believe in it completely, be able to express it, and communicate it to employees so that they would believe in and be excited by it as well. In this communication process between the leader and the organization's members, human resource management is crucial ([Ali et al. 2018](#)). Human resource management must staff, train, and communicate for the leader's vision to be properly delivered. To make the vision a reality, the leader must rely on human resource management to help employees become enthusiastic about it, as well as provide them with a roadmap for accomplishing the vision ([Zhu et al. 2005](#)). Passion is fueled by commitment and involvement, which are fueled by human resource management-driven work and organizational improvements. Employees must be given

authority to carry out the vision of the boss. On the other hand, research demonstrates that HRM practices and employee performance have a favorable impact on organizational performance (Al Qudah et al. 2014). However, in Ethiopia, what happens in the “black box” between leadership, HRM, and performance link is still mostly unknown. That is, there is a lack of awareness of how HRM practices and employee performance contribute to the success of the organization. Scholars contend that focusing simply on the direct link between HRM practices and employee performance provides only a limited view of performance (Saks 2021). For example, (Wu et al. 2021) pointed out the inconsistency between HRM practices and organizational effectiveness, implying that the relationship is more complicated than previously thought because the primary mechanism explaining how HRM practices relate to organizational performance has yet to be established, either theoretically or empirically (Arthur et al. 2016; Islam et al. 2021; Wu et al. 2021). As a result, the focus of this study was on HRM’s indirect impact on the relationship between leadership and employee performance. The following hypothesis was established based on the preceding discussion to investigate this relationship in Ethiopian manufacturing companies.

Hypothesis 3 (H3). HRM mediates the relationship between leadership and employees’ performance.

2.4. Conceptual Framework

The following Figure 1 shows the conceptual framework of this study constructed from different literature.

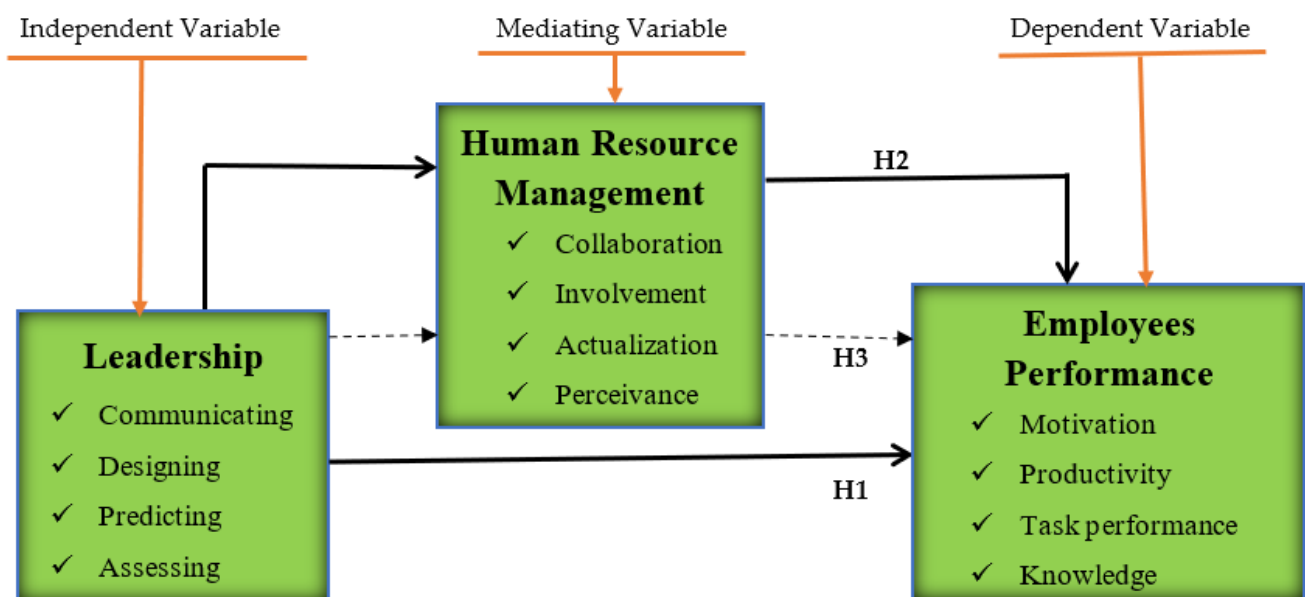


Figure 1. Conceptual Framework. Source: Researchers’ design based on literature review.

2.5. Measurements

Table 1 contains the fourteen items in the questionnaire. First, we operate five indicators of leadership adapted from the study of Hoch et al. (2018) in concepts of ethical leadership, transformational leadership, inclusive leadership, and responsible leadership in current research to measure their effectiveness in enhancing employees’ performance. Indicators of leadership are communicating, designing, predicting, assessing, and visioning. Whereas, collaboration, involvement, actualization, perceivance, and teamwork as human resource management practices were adapted from the study of (Marescaux et al. 2019) and (Gill 2018) to see their mediating role in the relationship between leadership and employees’ performance. Lastly, four indicators of employees’ performance such as motivation, productivity, task performance, and knowledge were considered to see whether the impact

of leadership and human resource has brought change to employees' performance or not. These were adapted from the studies of (Peters et al. 2019) and (Dong et al. 2015).

Table 1. Characteristics of leadership indicator, HRM, and employee performance.

No	Leadership Indicators	Explanations	Concept and Sources
1	Communicating	Leadership in companies that adapt your communication style, transparency, empathy, and receiving and implementing employees' feedback in making decisions.	Transactional leadership, ethical leadership, authentic leadership, (Hoch et al. 2018)
2	Designing	Leadership in companies that can think, design, collaborate, negotiate, present, sell, train, and push other designers to get better in their craft.	
3	Predicting	Leadership in companies that involve both analytical and imaginative thinking consider multiple scenarios and make some collective bets to create a truly shared vision of the future.	
4	Assessing	Leadership in companies that deal with people and problems, evaluate their emotional intelligence, clarity of communication, ability to form alliances, and tolerance of ambiguity and stress.	
5	Visioning	Leadership in companies forms a mental image to set goals, make plans, and solve problems that guide the organization into the future by enabling him and empowering him to make better decisions.	
HRM Practices			
6	Collaboration	The process of recruiting, training, and evaluating employee performance, and compensation in companies applies the ability to collaborate and work in teams in employees' work.	HR practices, (Marescaux et al. 2019)
7	Involvement	HRM in companies provides a platform and motivation for employees to participate, contribute skills, and participation in their work.	Review in HRM, (Gill 2018)
8	Actualization	HRM in companies that applies the presence of HR managers in employees' work.	
9	Perceivance	HR managers in companies that apply open and interlinked dialogue with employees in making HR policies relevant and accessible in their works.	
10	Teamwork	HRM in companies that support employees to have knowledge and teamwork skills, adaptability skills to new information, and knowledge of things in their work.	
Employees' Performance indicators			
11	Motivation	Employees already feel motivated by the work they do and all the attributes (personal need for work, compensation, leadership, environment, etc.) that go with it.	Research in business, hospitality, and tourism. (Peters et al. 2019)
12	Productivity	Employees have felt effective and efficient in using materials, resources, energy, capital, information, and time in their work.	
13	Task performance	Employees already feel skilled in completing the specific tasks in their work.	
14	Knowledge	Employees already have team knowledge regarding static assignments that are in work teams for their work.	

3. Methods and Materials Used

The study's primary goal was to investigate how leadership quality responds to employee performance, as well as the role of human resource management in mediating the relationship between leadership quality and employee performance. To accomplish this, the study employed an explanatory and descriptive research design. The rationale for employing this method is that explanatory research is an attempt to connect different ideas and to understand the different reasons, causes, and effects. Furthermore, the descriptive research design was used because it allows for the use of a wide range of research methods to investigate one or more variables. In this case, we were attempting to describe the relationship between leadership indicators, HRM practice, and employee performance. The study in hand also adopted a mixed research approach (both qualitative and quantitative) as it requires analyzing the relationship between variables based on theories and hypothesis testing using statistical procedures. The study drew on both primary and secondary data sources. The primary data was collected using a structured questionnaire, and the secondary data was gathered from various published and unpublished documents on the study topic. The questionnaire was designed with closed-ended questions. This type of question is simple for respondents to answer to demonstrate their knowledge of the subject. To make it easier for respondents to answer research questions simply, a five-point Likert scale recommended by (Dawes 2008) was used, with response options ranging from strongly disagree (1) to strongly agree (5).

The target population of the study was all active employees working in 1418 registered manufacturing companies in Addis Ababa, Ethiopia. The study employed multi-stage sampling techniques that included both purposive and simple random sampling techniques. Simple random sampling was used to select the targeted manufacturing companies from the total number of available manufacturing companies found in Addis Ababa. The majority of manufacturing businesses in Addis Ababa are young and have the same industry experience. As a result, we provide an equal chance of selection for all registered manufacturing companies. According to Jonker and Pennink (2010), a random sampling technique is used to give each event an equal chance of participation, and the sample observations can be used for inferential purposes. After selecting the companies at random, we used purposive sampling to distribute the prepared questions to respondents. In doing so, the experience of the employees, educational background, and knowledge of the specific area was taken into consideration. The sample size of the study is estimated based on the recommendation of Yamane's (1967) formula provided for simple random sampling techniques (as cited in Mohammed 2020).

$$n = \frac{N}{1 + N(e)^2}$$

where n is the sample size, N is the population size, and e is the level of precision. A 95% confidence level and $e = 0.05$, were assumed for determining the sample size for this study. Accordingly, the sample size for the study was calculated as follows.

$$n = \frac{1418}{1 + 1418(0.05)^2} \quad n = 312$$

As a result, the researcher randomly selected 312 manufacturing companies as a sample size from the 1418 companies because the researcher believed that taking a sample size larger than this would be unmanageable given the nature of the study. The questionnaire was designed for constructed variable leadership quality, human resource management, and employee performance. The questionnaire was disseminated in two ways. To begin, we distributed the questionnaire through various Facebook groups, google drive, and telegram channels to receive feedback from respondents. We attempted to identify those who had prior experience with social media in this manner. Using this method of data collection allowed researchers to reduce data collection time and avoid physical contact

during the COVID-19 era. Second, in the absence of respondents on social media, we physically distributed the questionnaire. The data were collected over one month, from 12 December to 12 January. The analysis was carried out using a structural and measurement model with the assistance of AMOS Version 2021.

4. Discussions

Leader competencies were measured with leadership indicator variables. This comprises of five items including communicating, designing, predicting, assessing, and visioning. Each item is phrased as a behavioral statement. For human resource management practices, again five items were used such as collaboration, involvement, actualization, perceivance, and teamwork variables to measure how these human resource management practices influence the company's employees. Finally, we used motivation, productivity, task performance, and knowledge as an indicator to measure the performance of the employees in the company. Respondents are asked to indicate how much their leader displays the behavior, how the HRM function looks like in their company, and how the leadership and human resource management practice influences their performance in their company on five Likert scales, ranging from "Strongly disagree" (1), to "Strongly agree" (5).

Following the collection of data from the questionnaire, the responses of the respondents were analyzed and discussed. The following section discusses the demographic background of the respondents.

According to the above Table 2, the number of male respondents who participated in answering the questionnaires was 210, while the number of female respondents was 102, translating to 67.30 percent male and 32.70 percent female. This implies that male respondents dominated the key management area in selected manufacturing companies, as compared to female respondents.

Table 2. Background of the respondents ($n = 312$).

			Frequency	Percent
1	Age (in Year)	18–25	19	6.1
		26–30	112	35.9
		31–40	163	52.24
		41–60	18	5.76
		Total	312	100.0
2	Sex	Male	210	67.30
		Female	102	32.70
		Total	312	100.0
3	Educational Level	Secondary Education	9	2.88
		Diploma	45	14.42
		BA Degree	175	56
		Masters	72	23
		Ph.D. and Above	11	3.5
Total	312	100.0		

Source: Survey data, 2021.

The majority of the respondents in the study, as shown in Table 2 above, are between the ages of 31 and 40. The second-largest age group of respondents is between the ages of 26 and 30. Respondents between the ages of 18 and 25 made up the third-largest group, while those between the ages of 41 and 60 made up the smallest group. It is observed that the majority of respondents are between the ages of 26 and 40, which is considered productive age to run a business.

From Table 2, it is also possible to understand that, the majority of respondents hold a BA degree, as evidenced by the fact that 175 (56 percent) of respondents responded that they held a BA degree. Masters degree holders were the second-largest respondent group in the study, as confirmed by 72 (23.9 percent) of respondents. Employees with a diploma account

for the third-largest proportion of study respondents (14.42 percent), while those with a secondary education account for the smallest proportion of respondents (2.88 percent). As a result, the researcher concludes that the majority of respondents (82.5 percent) have the educational level of a BA degree, and above. As the result, it can be argued that the respondents' educational qualification improves the quality of the study in attempting the exact relationship between construct variables.

4.1. Descriptive Analysis of the Study

The study used human resource management (HRM) as the mediating variable between leadership style and employee performance. HRM was measured by proxy indicators such as collaboration, actualization, involvement, perceivance, and teamwork. The independent variable leadership style was measured by proxy indicators such as communicating, designing, predicting, assessing, and visioning. The dependent variable of the study employee performance was measured by proxy indicators of motivation, productivity, task performance, and knowledge. The following (Table 2) of the study showed the descriptive statistics of each construct variable used in the study.

In this study, the overall response value of each indicator used under each variable was assessed using Gabčanová (2012) guideline. According to the guideline, indicators with a mean score of 1–2.61 are considered the lowest explaining power, 2.62–3.41 are considered average/moderate, 3.42–4.21 are considered good/high, and 4.22–5 are considered extremely high in explaining the latent variable. As a result, the descriptive statistics of each indicator are discussed in the following portion of the study.

The mean value of the human resource management indicators ranges from 3.48 (teamwork) to 3.81 (actualization). As a result, the indicators used to measure human resource management are thought to have a high level of explanatory power (3.42–4.21), as previously stated under Gabčanová (2012) criteria. With a mean value of 3.81 and a standard deviation of 0.817, actualization was discovered to be the most explaining indicator of human resource management. Teamwork, on the other hand, was discovered to be the least explaining indicator, with a mean value of 3.41 and a standard deviation of 0.198. The standard deviation of the indicator indicates how far each observation deviates from its mean value.

The mean value of leadership style indicators ranges from 3.48 (communicating) to 3.78 (visioning). As a result, the indicators are found to be very effective at explaining the latent variable. With a mean value of 3.78 and a standard deviation of 0.799, visioning was found to be the most explaining indicator of leadership style.

The mean value of the dependent variable employee performance indicators ranges from 3.80 (motivation) to 4.32 (knowledge). As a result, the indicators used to assess employee performance are thought to have a high and extremely high explanatory power (4.21–5). Knowledge has the highest explaining power among the indicators used, with a mean value of 4.32 and a standard deviation of 0.588.

This is supported by the findings of (Mura et al. 2021) research, which show that employees require trust and emotional safety. They are more likely to act and behave ethically and share their knowledge with coworkers if they trust their coworkers and leaders, but if they do not trust their leaders, they may not act and behave ethically and are unwilling to share their knowledge.

The findings of our study also show that the observation of each indicator used under each variable differs based on gender. As a result, female respondents scored highest on leadership indicators such as (teamwork, collaboration, and involvement). While male respondents scored the highest on actualization and perception. Furthermore, female respondents scored highest on human resource management and performance indicators such as communicating and designing (HRM), motivation, and productivity (performance). According to the results of row data, the majority of female respondents strongly agreed on the influence of leadership on performance via teamwork, collaboration, and involvement indicators. Additionally, they strongly agreed on the impact of human

resource management on performance through HRM indicators of communicating and designing. Mura et al. (2021) discovered that the attitudes of employees and owners differ in various ways, as gender influences emotional intelligence. Therefore, HRM policies and practices cause significant psychological and physical distress, mental and physical ill-health, job dissatisfaction, low organizational commitment, and high employee turnover rates (Mariappanadar 2012); and (Guest 2017). As a result, this demonstrates that a company can improve employee performance by implementing leadership indicators as well as human resource management practices.

4.2. Measurement Model

The study used an outer (measurement) model to examine the relationships between the latent variables and their measures. The outer loading of the measures is found strongly associated with the construct since all have factor loading values of greater than 0.70 (Gefen and Straub 2005). Furthermore, the first component of the measurement model which is supposed to be reliability analysis was performed with composite reliability and Cronbach alpha. In line with the benchmark of Sarstedt et al. (2020) the cut-off point for composite reliability and Cronbach alpha is supposed to be greater than 0.70. Hence the reliability analysis test result implies all variables have a test result greater than the cut-off point (Table 3). The second component of the measurement model (convergent validity) was performed and found the validity of data with an average variance extracted value of greater than 0.50 (Sarstedt et al. 2020) (Table 3). The issue of collinearity was tested through the variance inflation factor. According to Sarstedt et al. (2020), the variance inflation factor should be less than 10 to ignore the collinearity issue. Hence based on this argument the study concluded that there is no evidence for the existence of collinearity between variables since the value of the variance inflation factor is less than 10 for all variables (Table 3). The result of the measurement model of the study shows that the data collected and used in the study is reliable and valid.

Table 3. Descriptive statistics.

Indicators	N	Mean	Std. Deviation
Collaboration	312	3.74	0.875
Actualization	312	3.81	0.817
Involvement	312	3.64	0.910
Perceivance	312	3.72	0.845
Teamwork	312	3.48	0.918
Communicating	312	3.48	0.925
Designing	312	3.72	0.811
Predicting	312	3.52	0.875
Assessing	312	3.59	0.844
Visioning	312	3.76	0.799
Motivation	312	3.80	0.804
Productivity	312	3.94	0.697
Task performance	312	4.16	0.580
Knowledge	312	4.32	0.588
Valid N (listwise)	312		

Source: Amos data processing result.

Goodness of Fit

AMOS (analysis of moments structure) is a recently developed statistical program that can test for the goodness of fit between the researcher's obtained data and the researcher's specified or hypothesized structure. It is known by the estimation of the covariance matrix and several t indexes to assess the goodness-of-fit between the data and the specified model. The goodness of fit can be measured using various parameters such as CMIN/DF, which was used in the study of (Marsh and Hocevar 1985). Chi-square statistics and degrees of freedom are reported as a single t index. In doing so, the minimum value of the discrepancy,

C, divided by the degrees of freedom (CMIN/df), is used to examine the significance of chi-square values.

According to the authors, the model is fit if the value CMINF/DF is less than five. Furthermore, (Guest 2009) found that for large sample sizes, the CMINF/DF value must be less than five to indicate that the model is fit. The root mean square error of approximation (RMSEA) that considers the model's complexity and degrees of freedom is also another parameter for the goodness of fit. According to (Byrne 2001) and (Reichstein et al. 2005), the proposed cutoff value for RMSEA is 0.05 or less to be used to indicate a close relationship between the data and the model. Confirmatory factor analysis is another method used to report goodness of fit (CFI). The cutoff point for accepting the model under CFI is 90%. That the CFI value must be greater than 90% to report goodness of fit (Bentler 1990), and (Hatcher et al. 1994). Other parameters used in the study are shown in the section following this one. The following (Table 4) of the study shows the details of the current study results.

Table 4. Outer loading and reliability analysis.

NO	Indicators		OL	Alpha	CR	AVE	VIF
HRM					0.93	0.685	
1	Collaboration	<—	HRM	0.668	0.756		1.89
2	Actualization	<—	HRM	0.757	0.821		2.34
3	Involvement	<—	HRM	0.746	0.832		1.78
4	Perceivance	<—	HRM	0.749	0.811		1.69
5	Teamwork	<—	HRM	0.735	0.772		2.98
Leadership					0.898	0.856	
1	Communicating	<—	Leadership	0.681	0.786		3.20
2	Designing	<—	Leadership	0.801	0.842		2.58
3	Predicting	<—	Leadership	0.707	0.867		2.63
4	Assessing	<—	Leadership	0.844	0.792		1.79
5	Visioning	<—	Leadership	0.822	0.883		1.58
Performance					0.913	0.785	
1	Motivation	<—	Performance	0.671	0.766		1.67
2	Productivity	<—	Performance	0.807	0.873		2.89
3	Task performance	<—	Performance	0.759	0.857		3.02
4	Knowledge	<—	Performance	0.624	0.891		2.16

Source: Amos data processing result. Note: OL—outer loading, AVE—average variance extracted, CR—composite reliability, and VIF—variance inflation factor.

The following Table 5 show the result model fit with the help of Amos.

Table 5. The result of model fit.

No	Parameters	Result	Accepted Value	Source
1	CMIN/DF	3.67	<5	(Marsh and Hocevar 1985), (Bentler 1990), (Guest 2009)
2	CFI	0.924	>0.90	(Bentler 1990) and (Hatcher et al. 1994)
3	RSMESA	0.062	<0.80	(Byrne 2001) and (Reichstein et al. 2005)
4	NFI	0.936	>0.90	(Bentler 1990)
5	PCFI	0.701	>0.50	(Reichstein et al. 2005)
6	RMSR	0.008	<0.05	(Reichstein et al. 2005)

Source: Amos data processing result.

As can be seen in the above (Table 5), the result of each parameter was examined with previously established studies. The study result implies that the model is fit under each parameter.

4.3. Structural Model

The structural model assessment method was used in the study to investigate the relationship between the variables proposed. In doing so, the study estimates both the direct and indirect effects of leadership on employee performance.

The following (Table 6 and Figure 2) shows the study result framework with further discussions.

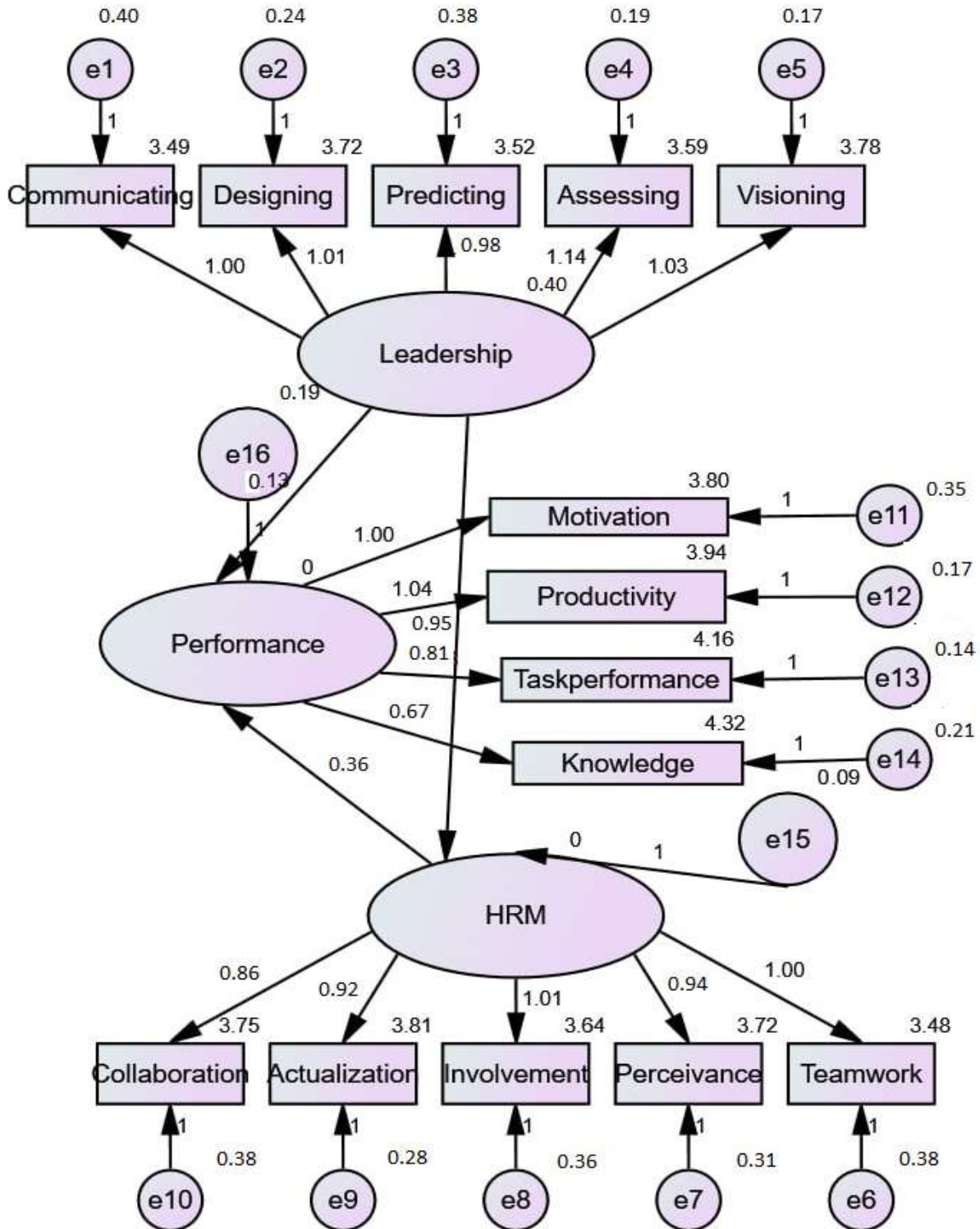


Figure 2. Regression result framework.

Table 6. Structural model estimation.

Estimations	Estimate	Probability
<i>Direct effect</i>		
Leadership → Human resource management	0.896	***
Human resource management → Performance	0.466	**
Leadership → Performance	0.134	0.474
<i>Indirect effect</i>		
Leadership → Human resource management → Performance	0.417	***
<i>Total effect</i>		
Leadership → Performance	0.551	***

Source: Amos data processing result. Note: $t > 2.58$ at $** p < 0.01$; $t > 3.29$ at $*** p < 0.001$.

4.4. Measurement Model

We tested our hypotheses in several ways. First, we performed regression analyses to test the direct effects of the interaction of leadership on employees' performance. Second, in line with prior research, which suggests a combined approach to the test of mediation (e.g., Lin and McDonough (2014); Lin et al. (2013); Preacher and Hayes (2008), we combined Baron and Kenny's (1986) four-step criteria, bootstrapping technique MacKinnon and Dwyer (1993); Zhao et al. (2010) and Crawford and Sobel (1982) test to test for the mediating effect of human resource management on the relationship between leadership and employees' performance. Baron and Kenny's (1986) four-step criteria help informally judge if the proposed mediation occurs. It requires (1) the significant effect of the independent variable on the dependent variable, (2) the significant relationship of the independent variable with the mediator, (3) the significant effect of the mediator on the dependent variable, and (4) the significant relationship between the mediator and the dependent variable with the independent variable controlled. The bootstrapping technique together with the Crawford and Sobel (1982) test was used to formally test the mediating effect.

Hence, from the above table, the result of direct effect estimation shows that leadership has no significant effect on employees' performance with a path coefficient of ($\beta = 0.134$, p -value = 0.474). This finding supports the results of research conducted by (Fakhri et al. 2020; Kertiriasih et al. 2018; Pawirosumarto et al. 2017; Prabowo et al. 2018; Shahab and Nisa 2014). However, the results of this study contradict the results of studies conducted by authors that have explained the interaction between leadership and employees' performance. They are (Bastari et al. 2020; Febiningtyas and Ekaningtyas 2014; Rozi et al. 2020; Sundi 2013; Top et al. 2020). Human resource management, on the other hand, has a positive and significant effect on employee performance. According to the findings of the study, human resource management has a direct positive and significant effect on employee performance, with a path coefficient (=0.466, p -value < 0.05). The result also implies that a one-unit increase in human resource management causes a 0.896-unit increase in employee performance and is statically significant at a 5 percent significance level. The finding of this study is consistent with the study established by (Green et al. 2006; Koonmee et al. 2010; Mudor 2011; Ngo et al. 2008; Steijn 2004; Zhou et al. 2020). However, the result conducted by Van De Voorde et al. (2012) was contradict our research finding as they found their study as there is no relationship between HRM and employees' performance. The finding of the study further implies that leadership has a positive and significant effect on human resource management with a path coefficient (=0.896, p -value < 0.000), and statically significant at a 1 percent significance level. This can also be supported by the findings of (Kloutsiniotis et al. 2022; Oubrich et al. 2021)

4.5. Mediating Analysis

Despite a strong interest in the impact of HRM on employee performance (Huettermann and Bruch 2019); (Zhu et al. 2019), more understanding of the mediating processes by

which HRM influences quality leadership and increased employee performance is required (Chaudhry et al. 2019). Therefore, this study investigates whether human resource management has a mediating role between leadership and employee performance. According to the findings of the structural model analysis, human resource management plays a positive and significant mediating role between leadership and employee performance, with a path coefficient of $(=0.417, p\text{-value} < 0.01)$. This implies that leadership has an impact on employee performance via human resource management. As a result, it is possible to conclude that the effect of leadership on employee performance is indirect and statistically significant. In total effect, human resource management has a fully mediating role between leadership and employee performance. The finding of this study is consistent with the study established by Ali et al. (2018). The human resources department is crucial in the design and implementation of performance appraisals. The HR team serves as a liaison between the employee and the company's leaders or reviewing authorities.

Through collaboration, involvement, actualization, perceivance, and teamwork with employees, human resource management practices can improve the quality of leaders. A high level of leadership indicator was discovered to be associated with a high level of HRM practice by leaders for achieving organizational goals (Rego et al. 2016). Leadership and human resources have a symbiotic relationship. So many good HR practices, policies, and practices are dependent on good leadership, and so many good HR practices are dependent on good leadership—the right interventions at the right time, for the right leaders (Elmore 2008). The research finding conducted by (Holbeche 2009) also shows that the HRM practice contributes to the creation of added value by ensuring the availability of people with the necessary competencies and levels of motivation, as well as by assisting in the creation of a culture and environment that promotes quality performance. This demonstrates that the success of each organization is the result of efficient utilization of human resource management practices, as well as a good leadership indicator. Leaders must have an innovative vision, believe in it completely, be able to express it, and communicate it to employees so that they would believe in and be excited by it as well. In this communication process between the leader and the organization's members, human resource management is crucial (Ali et al. 2018). Walumbwa et al. (2008) argue that human resource management practices, along with appropriate leadership style, play a critical role in improving employees' performance in a company, particularly by improving employees' affective bond to the organization. This clearly demonstrates that human resource management practices can serve as a bridge between leadership and employee performance.

It is the human resource team's responsibility to ensure that the appraisal process runs smoothly (Bourne et al. 2013). This demonstrates that even if the company has a competent leader, it will not be successful unless human resource management practices are implemented. As a result of the findings, HRM has a positive and significant effect on employee performance while also mediating the relationship between leadership and employee performance. This result is also consistent with the research findings of Islam et al. (2021); Ali et al. (2018); Zhu et al. (2005); Al Qudah et al. (2014). On the other hand, the research conducted by Wu et al. (2021) contradicted this finding. Therefore, the study accepts H2 and H3, because HRM practice has a direct positive relationship to performance, and, also, has a mediating role between leadership and employees' performance relationships. However, this research finding fails to accept H1 since leadership has no direct significant effect on employee performance.

5. Conclusions and Recommendations

This study aimed to use human resource management to establish a link between leadership and employees' performance in Ethiopia's manufacturing industries. This research gives various beginning points for increasing the performance of manufacturing organizations through their personnel based on its findings. It appears that firms must invest in employees' needs by employing human resource management strategies to improve their performance. Furthermore, the findings found that manufacturing employees, like those in

other industries, have a strong desire to stay with the firm and that it is up to the leadership to develop trust, inspiration, and a sense of loyalty and responsibility. This will encourage employees to continue to give their best to help their companies achieve objectives. This implies that the leaders in those manufacturing companies deal with their employees by setting goals, making plans, and solving problems that guide the organization into the future by enabling and empowering them to make better decisions. Therefore, manufacturing companies in Ethiopia are better to adopt leadership development approaches that facilitate performance. This paper's result may also inspire the companies to think about the qualities of vision and innovative approach in a leader, which may lead manufacturing companies in Ethiopia to better manage the process of organizational change and may increase the chances of their success. Employee motivation, productivity, and task performance improve when leaders provide service, knowledge sharing, and empowerment to their employees (Mura et al. 2021). Furthermore, the study finding provides insight into gender difference matters in leadership quality. As the majority of leadership indicators scored the highest value under female respondents, hence the manufacturing companies should think about bringing the female employee to a managerial position in a boost to increase the leadership quality indicators that deliberately influence the employee performance. The direct effect of leadership quality was found insignificant in influencing the employee performance in this study, and this may also happen because of the influence of gender difference as the majority of the respondents who participated in this study were male respondents.

Besides, the current study findings imply that when employees view their leaders as employing conduct that allows them to engage in decision-making, they become more devoted to the industries, more loyal to the entity's course, and improve their performance. This is also supported by the findings of Kloutsiniotis et al. (2022); and Scuotto et al. (2022). To boost employee work performance and commitment, managers should adopt appropriate leadership to satisfy and retain them to serve the industries for a long period. Moreover, proper HRM training programs are better to be intended so that employees will be more committed to the success of manufacturing enterprises as a result of this and may assume that the future is bright if they continue to enhance their performance. However, more than everything, manufacturing companies in Ethiopia are better to approach management consulting agencies to help their organizations improve the performance of their employees and achieve their goals efficiently and effectively. Because management consulting agencies enable the organization by giving advice and accessing consultants' specialized expertise on how to enhance employees' performance using appropriate leadership through good human resource management practices as suggested by the research findings (Szeiner et al. 2020). Emotional intelligence is also important for the employees of the company, especially when performing tasks that require teamwork (Mura et al. 2021). Therefore, it's very recommended to managers of manufacturing industries in Ethiopia to keep knowledge-sharing habits in their organization so that their employees can perform the complicated tasks easily with teams.

However, there are some limitations to this research, to begin, we conducted just on manufacturing companies found in Addis Ababa city. Hence, further research can be undertaken in different parts of the country to ensure that the findings are generalizable. Furthermore, this research was designed as a cross-sectional study to test the hypothesized relationships between the variables. As a result, future scholars will be able to evaluate relationships over time.

Practical Implications

The study's findings have implications for HRM practice. We emphasize the critical role that leaders must play in maximizing the benefits of HRM practices in the organization (Alagaraja 2013). Ethiopian manufacturing industry leaders must understand their role and influence in defining and maximizing HRM contributions in the workplace to improve employee performance (Thornhill and Saunders 1998). According to the findings of (Elmore 2008), when company leaders are deeply invested in integrating HRM practices

and leadership indicators, organizations can expect higher levels of productivity, improved employee morale, and increased customer satisfaction. We believe that leaders should take the lead in improving the quality of HRM practice contributions by allocating resources and providing support and encouragement to HRM professionals to improve employee performance. On the other hand, HRM policies and practices negatively cause significant psychological and physical distress, mental and physical ill-health, job dissatisfaction, low organizational commitment, and high employee turnover rates if they are not associated with appropriate leadership indicators (Mariappanadar 2012); and (Guest 2017). Hence, this demonstrates that a company can improve employee performance by implementing leadership indicators as well as human resource management practices.

Author Contributions: Conceptualization, N.S. and A.C.; Formal analysis, N.S. and I.H.; Methodology, G.D.; Software, G.D.; Supervision, I.H. and A.T.; Validation, I.H. and A.T.; Writing—original draft, N.S. and G.D.; Writing—review & editing, N.S. and A.C. All authors have read and agreed to the published version of the manuscript.

Funding: The APC was funded by Hungarian University of Agriculture and Life Science, Doctorial School of Economics and Regional Sciences.

Institutional Review Board Statement: Ethical review and approval were waived for this study due to the fact that we used anonymous data that were not traceable to individuals at any time.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data can be available based on request @ getnur2000@gmail.com and goshudasalegn@gmail.com.

Conflicts of Interest: We declare no conflict of interest.

References

- Addis, Sisay. 2019. An exploration of quality management practices in the manufacturing industry of Ethiopia. *The TQM Journal* 32: 127–42. [\[CrossRef\]](#)
- Agarwal, Upasna, Megha Gupta, and Fang Lee Cooke. 2022. Knowledge hides and seeks: Role of ethical leadership, self-enhancement, and job-involvement. *Journal of Business Research* 141: 770–81. [\[CrossRef\]](#)
- Al Qudah, Hamzah Mohammad, Abdullah Osman, and Hamzah Edris. 2014. The Effect of Human Resources Management Practices on Employee Performance. *International Journal of Scientific & Technology Research* 3: 129–34.
- Alagaraja, Meera. 2013. HRD and HRM perspectives on organizational performance: A review of the literature. *Human Resource Development Review* 12: 117–43. [\[CrossRef\]](#)
- Ali, Muhammad, Shen Lei, and Xiao-Yong Wei. 2018. The mediating role of the employee relations climate in the relationship between strategic HRM and organizational performance in Chinese banks. *Journal of Innovation & Knowledge* 3: 115–22. [\[CrossRef\]](#)
- Arthur, Jeffrey, Andrew Herdman, and Jaewan Yang. 2016. How Top Management HR Beliefs and Values Affect High-Performance Work System Adoption and Implementation Effectiveness. *Human Resource Management* 55: 413–35. [\[CrossRef\]](#)
- Barba-Aragón, María Isabel, and Daniel Jiménez-Jiménez. 2020. HRM and radical innovation: A dual approach with exploration as a mediator. *European Management Journal* 38: 791–803. [\[CrossRef\]](#)
- Baron, Reuben M., and David A. Kenny. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* 51: 1173. [\[CrossRef\]](#)
- Barua, Bikash. 2021. Impact of total quality management factors on knowledge creation in the organizations of Bangladesh. *TQM Journal* 33: 1516–43. [\[CrossRef\]](#)
- Bastari, Ary, Anis Eliyana, and T. Wijayanti. 2020. Effects of transformational leadership styles on job performance with job motivation as mediation: A study in a state-owned enterprise. *Management Science Letters* 10: 2883–88. [\[CrossRef\]](#)
- Bello-Pintado, Alejandro. 2015. Bundles of HRM practices and performance: Empirical evidence from a Latin American context. *Human Resource Management Journal* 25: 311–30. [\[CrossRef\]](#)
- Benbahia, Soumia, and Omar Rajáa. 2019. Impact of HRM Practices on Social Performance: Mediating Role of both Satisfaction and Affective Commitment in Multicultural Context. *International Journal of Business and Social Science* 10: 104–22. [\[CrossRef\]](#)
- Bentler, Peter M. 1990. Comparative fit indexes in structural models. *Psychological Bulletin* 107: 238. [\[CrossRef\]](#) [\[PubMed\]](#)
- Berhe, Haftu Hailu. 2021. Application of Kaizen philosophy for enhancing manufacturing industries' performance: Exploratory study of Ethiopian chemical industries. *International Journal of Quality & Reliability Management* 39: 204–35. [\[CrossRef\]](#)

- Bourne, Mike, Andrey Pavlov, Monica Franco-Santos, Lorenzo Lucianetti, and Matteo Mura. 2013. Generating organizational performance: The contributing effects of performance measurement and human resource management practices. *International Journal of Operations & Production Management* 33: 1599–622. [CrossRef]
- Byrne, Barbara. 2001. Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing* 1: 55–86. [CrossRef]
- Chaudhry, Naveed Iqbal, Iqra Aftab, Zainab Arif, Usman Tariq, and Muhammad Azam Roomi. 2019. Impact of customer-oriented strategy on financial performance with mediating role of HRM and innovation capability. *Personnel Review* 48: 631–43. [CrossRef]
- Correia, Manuela Faia, Rita Campos e Cunha, and Marc Scholten. 2013. Impact of M&As on organizational performance: The moderating role of HRM centrality. *European Management Journal* 31: 323–32. [CrossRef]
- Crawford, Vincent, and Joel Sobel. 1982. Strategic information transmission. *Econometrica: Journal of the Econometric Society* 50: 1431–51. [CrossRef]
- Cristiani, Alvaro, and José Peiró. 2019. Calculative and collaborative HRM practices, turnover, and performance. *International Journal of Manpower* 40: 616–42. [CrossRef]
- Dawes, John. 2008. Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. *International Journal of Market Research* 50: 61–104.
- de Brito, Renata Peregrino, and Lucia Barbosa de Oliveira. 2016. The relationship between human resource management and organizational performance. *Brazilian Business Review* 13: 90–110. [CrossRef]
- Dong, Yuntao, Hui Liao, Aichia Chuang, Jing Zhou, and Elizabeth M. Campbell. 2015. Fostering employee service creativity: Joint effects of customer empowering behaviors and supervisory empowering leadership. *Journal of Applied Psychology* 100: 1364. [CrossRef] [PubMed]
- Duvnjak, Barbara, and Andrej Kohont. 2021. The role of sustainable hr in sustainable development. *Sustainability* 13: 668. [CrossRef]
- Elmore, Richard. 2008. *Leadership as the Practice of Improvement*. Paris: OECD, vol. 2, pp. 37–67.
- Eshetie, Tekeba. 2018. Ethiopia's Manufacturing Industry Opportunities, Challenges and Way Forward: A Sectoral Overview. *Novel Techniques in Nutrition and Food Science* 2: 143–49. [CrossRef]
- Fakhri, Mahendra, Mahir Pradana, Syarifuddin Syarifuddin, and Yozi Suhendra. 2020. Leadership style and its impact on employee performance at Indonesian national electricity company. *The Open Psychology Journal* 13: 321–25.
- Febiningtyas, Rista Eka Rachim, and Diah Ekaningtias. 2014. The effect of leadership, motivation, and work discipline on the employees' performance in the finance section in the regional working unit in Tulungagung regency. *The Indonesian Accounting Review* 4: 97–106. [CrossRef]
- Fry, Louis, and Mark Kriger. 2009. Towards a theory of being-centered leadership: Multiple levels of being as context for effective leadership. *Human Relations* 62: 1667–96. [CrossRef]
- Gabčanová, Iveta. 2012. Human resources key performance indicators. *Journal of Competitiveness* 4: 117–28. [CrossRef]
- Gebreyohannes, Yodit. 2015. Assessment of the Challenges of Micro and Small Scale Enterprises to Contribute to Sustainable Development: The Case of Manufacturing Enterprises in Addis Ababa. Master's thesis, Addis Ababa University, Addis Ababa, Ethiopia.
- Gefen, David, and Detmar Straub. 2005. A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information Systems* 16: 5. [CrossRef]
- Gill, Carol. 2018. Don't know, don't care: An exploration of evidence-based knowledge and practice in human resource management. *Human Resource Management Review* 28: 103–15. [CrossRef]
- Green, Kenneth W., Cindy Wu, Dwayne Whitten, and Bobby Medlin. 2006. The impact of strategic human resource management on firm performance and HR professionals' work attitude and work performance. *The International Journal of Human Resource Management* 17: 559–79. [CrossRef]
- Growth, Nour. 2016. Transformation Plan II (2015/16-2019/20). Vol I the Main Text Addis Ababa. Available online: <https://plasticsdb.surrey.ac.uk/documents/ethiopia> (accessed on 25 March 2021).
- Guest, David. 2017. Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal* 27: 22–38. [CrossRef]
- Guest, David. 2009. Multivariate Data Analysis. *School of Management and Business, King's College London Human Resource Management Journal* 27: 22–38.
- Haldorai, Kavitha, Woo Gon Kim, and RL Fernando Garcia. 2022. Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. *Tourism Management* 88: 104431. [CrossRef]
- Hatcher, Peter, Charles Hulme, and Andrew Ellis. 1994. Ameliorating early reading failure by integrating the teaching of reading and phonological skills: The phonological linkage hypothesis. *Child Development* 65: 41–57. [CrossRef]
- Hermans, Michel. 2010. A Stakeholder Perspective on Hrm-Performance Linkages. Available online: <https://hdl.handle.net/1813/17661> (accessed on 8 February 2021).
- Hoch, Julia, William Bommer, James Dulebohn, and Dongyuan Wu. 2018. Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *Journal of Management* 44: 501–29. [CrossRef]
- Holbeche, Linda. 2009. *Aligning Human Resources and Business Strategy*. London: Routledge.

- Huettermann, Hendrik, and Heike Bruch. 2019. Mutual gains? Health-related HRM, collective well-being, and organizational performance. *Journal of Management Studies* 56: 1045–72. [CrossRef]
- Islam, Nazmul, Fumitaka Furuoka, and Aida Idris. 2021. Mapping the relationship between transformational leadership, trust in leadership, and employee championing behavior during organizational change. *Asia Pacific Management Review* 26: 95–102. [CrossRef]
- Jonker, Jan, and Bartjan Pennink. 2010. *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science*. Berlin: Springer Science & Business Media.
- Kertiasih, Ni Nengah Rupadi, Wayan Sujana, and Nengah Suardika. 2018. The effect of leadership style to job satisfaction, employee engagement and employee performance (study at PT. Interbat, Bali, Nusra, and Ambon). *International Journal of Contemporary Research and Review* 9: 20592–600.
- Kim, Andrea. 2010. Exploring the Linkages between Strategic Capabilities and Hrm in the Korean Management Consulting Industry. New Brunswick Electronic thesis, Rutgers, The State University of New Jersey, Piscataway, NJ, USA. [CrossRef]
- Kloutsiniotis, Panagiotis V., Dimitrios M. Mihail, Naoum Mylonas, and Adamantia Pateli. 2022. Transformational Leadership, HRM practices and burnout during the COVID-19 pandemic: The role of personal stress, anxiety, and workplace loneliness. *International Journal of Hospitality Management* 102: 103177. [CrossRef]
- Koonmee, Kalayanee, Anusorn Singhapakdi, Busaya Virakul, and Dong-Jin Lee. 2010. Ethics institutionalization, quality of work-life, and employee job-related outcomes: A survey of human resource managers in Thailand. *Journal of Business Research* 63: 20–26. [CrossRef]
- Kotterman, James. 2006. Leadership versus management: What's the difference? *The Journal for Quality and Participation* 29: 13.
- Kwon, Min, Dai-Jin Kim, Hyun Cho, and Soo Yang. 2013. A Conceptual Study on the HRM Fit between Organization and Employee. *Korean Review of Organizational Studies* 10: 125–156. [CrossRef]
- Leigh, Jacqueline, Matthew Lamont, and Grant Cairncross. 2021. Event managers' leadership styles and attitudes towards resourcing volunteer training: Exploring variation and practice implications. *Tourism Management Perspectives* 40: 100887. [CrossRef]
- Lin, Hsing-Er, and Edward F. McDonough III. 2014. Cognitive frames, learning mechanisms, and innovation ambidexterity. *Journal of Product Innovation Management* 31: 170–88. [CrossRef]
- Lin, Min, Qiang Chen, and Shuicheng Yan. 2013. Network in network. *arXiv* arXiv:1312.4400.
- MacKinnon, David, and James Dwyer. 1993. Estimating mediated effects in prevention studies. *Evaluation Review* 17: 144–58. [CrossRef]
- Marescaux, Elise, Sophie De Winne, and Anneleen Forrier. 2019. Developmental HRM, employee well-being and performance: The moderating role of developing leadership. *European Management Review* 16: 317–31. [CrossRef]
- Mariappanadar, Sugumar. 2012. The harm of efficiency-oriented HRM practices on stakeholders: An ethical issue for sustainability. *Society and Business Review* 7: 168–84. [CrossRef]
- Marsh, Herbert W., and Dennis Hocevar. 1985. Application of confirmatory factor analysis to the study of self-concept: First-and higher-order factor models and their invariance across groups. *Psychological Bulletin* 97: 562. [CrossRef]
- Mekhum, Witthaya. 2020. The Influence of Personal Knowledge Management and Leadership Style on the Firms Performance: An Empirical Evidence from Thailand. *Systematic Reviews in Pharmacy* 11: 380–88.
- Mohammed, Nuru. 2020. A Study of Customers' Behavior towards Local and Imported Compact Cars (Comparative Analysis of Lifan and Marathon Motors Plc). Abiy Zegeye, Alemayehu Worku, Daniel Tefera, Melese Getu, Yilma Sileshi, (2009), Introduction to Research Methods (Preparatory Module for Addis Ababa University Graduate Programs), Addis Ababa University. Available online: <https://ssrn.com/abstract=3708786> (accessed on 18 October 2021).
- Mudra, Hamdia. 2011. Conceptual framework on the relationship between human resource management practices, job satisfaction, and turnover. *Journal of Economics and Behavioral Studies* 2: 41–49. [CrossRef]
- Mura, Ladislav, Tibor Zsigmond, and Renáta Machová. 2021. The effects of emotional intelligence and ethics of SME employees on knowledge sharing in Central-European countries. *Oeconomia Copernicana* 12: 907–34. [CrossRef]
- Ngo, Hang-Yue, Chung-Ming Lau, and Sharon Foley. 2008. Strategic human resource management, firm performance, and employee relations climate in China. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in Alliance with the Society of Human Resources Management* 47: 73–90. [CrossRef]
- Opland, Leif Erik, Ilias O. Pappas, Jostein Engesmo, and Letizia Jaccheri. 2022. Employee-driven digital innovation: A systematic review and a research agenda. *Journal of Business Research* 143: 255–71. [CrossRef]
- Oubrich, Mourad, Abdelati Hakmaoui, Lamiae Benhayoun, Klaus Solberg Söilen, and Bisan Abdulkader. 2021. Impacts of leadership style, organizational design and HRM practices on knowledge hiding: The indirect roles of organizational justice and competitive work environment. *Journal of Business Research* 137: 488–99. [CrossRef]
- Pawirosu, Suharno, Purwanto Katijan Sarjana, and Rachmad Gunawan. 2017. The effect of work environment, leadership style, and organizational culture towards job satisfaction and its implication towards employee performance in Parador Hotels and Resorts, Indonesia. *International Journal of Law and Management* 59: 1337–58.
- Peters, Mike, Andreas Kallmuenzer, and Dimitrios Buhalis. 2019. Hospitality entrepreneurs managing quality of life and business growth. *Current Issues in Tourism* 22: 2014–33. [CrossRef]
- Prabowo, Thoni Setyo, Noermijati Noermijati, and Dodi Wirawan Irawanto. 2018. The influence of transformational leadership and work motivation on employee performance mediated by job satisfaction. *Jurnal Aplikasi Manajemen* 16: 171–78.

- Preacher, Kristopher, and Andrew Hayes. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods* 40: 879–91. [CrossRef]
- Quantz, Richard A., Judy Rogers, and Michael Dantley. 1991. Rethinking transformative leadership: Toward democratic reform of schools. *Journal of Education* 173: 96–118. [CrossRef]
- Rao, Robio, and Zerihun Tesfahunegn. 2015. Performance measurement of manufacturing industries in Ethiopia-An analytical study. *Journal of Poverty, Investment and Development* 7: 123–38.
- Rego, Paulo, Miguel Pereira Lopes, and José Luís Nascimento. 2016. Authentic leadership and organizational commitment: The mediating role of positive psychological capital. *Journal of Industrial Engineering and Management (JIEM)* 9: 129–51. [CrossRef]
- Reichstein, Markus, Eva Falge, Dennis Baldocchi, Dario Papale, Marc Aubinet, Paul Berbigier, Christian Bernhofer, Nina Buchmann, Tagir Gilmanov, André Granier, and et al. 2005. On the separation of net ecosystem exchange into assimilation and ecosystem respiration: Review and improved algorithm. *Global Change Biology* 11: 1424–39. [CrossRef]
- Rozi, Achmad, Farida Agustin, Reni Hindriari, Dian Rostikawati, and Irfan Rizka Akbar. 2020. The effect of leadership on employee performance at PT. Stella Satindo in Jakarta. *HUMANIS (Humanities, Management and Science Proceedings)* 1: 55–61.
- Saks, Alan. 2021. Caring for human resources management and employee engagement. *Human Resource Management Review* 100835. [CrossRef]
- Saridakis, George, Yanqing Lai, and Cary L. Cooper. 2017. Exploring the relationship between HRM and firm performance: A meta-analysis of longitudinal studies. *Human Resource Management Review* 27: 87–96. [CrossRef]
- Sarstedt, Marko, Christian M. Ringle, Jun-Hwa Cheah, Hiram Ting, Ovidiu I. Moisescu, and Lacramioara Radomir. 2020. Structural model robustness checks in PLS-SEM. *Tourism Economics* 26: 531–54. [CrossRef]
- Scuotto, Veronica, Chiara Nespoli, Phuong Tra Tran, and Giuseppe Cappiello. 2022. An alternative way to predict knowledge hiding: The lens of transformational leadership. *Journal of Business Research* 140: 76–84. [CrossRef]
- Shahab, Moh Ali, and Inna Nisa. 2014. The influence of leadership and work attitudes toward job satisfaction and performance of employee. *International Journal of Managerial Studies and Research* 2: 69–77.
- Shapiro, Barry I., Getachew Gebru, Solomon Desta, Asfaw Negassa, Kidus Negussie, Gezahegn Aboset, and Henok Mechal. 2015. *Ethiopia Livestock Master Plan: Roadmaps for Growth and Transformation*. Nairobi: International Livestock Research Institute (ILRI).
- Stahl, Günter K., Chris Brewster, David G. Collings, and Aida Hajro. 2020. Enhancing the role of human resource management in corporate sustainability and social responsibility: A multi-stakeholder, multidimensional approach to HRM. *Human Resource Management Review* 30: 100708. [CrossRef]
- Steijn, Bram. 2004. Human resource management and job satisfaction in the Dutch public sector. *Review of Public Personnel Administration* 24: 291–303. [CrossRef]
- Sundi, Kirsten. 2013. Effect of transformational leadership and transactional leadership on employee performance of Konawe Education Department at Southeast Sulawesi Province. *International Journal of Business and Management Invention* 2: 50–58.
- Szeiner, Zsuzsanna, Ladislav Mura, Zsolt Horbulák, Mike Roberson, and József Poór. 2020. Management consulting trends in Slovakia in the light of global and regional tendencies. *Journal of Eastern European and Central Asian Research (JEECAR)* 7: 191–204. [CrossRef]
- Tang, Xiaoyang. 2019. Chinese manufacturing investments and knowledge transfer: A report from Ethiopia. *SAIS-CARI Working Paper* 3: 1–32. [CrossRef]
- Tarba, Shlomo, Sir Cary L. Cooper, Riikka M. Saralac, and Paulina Junni. 2021. HRM challenges in cross-cultural collaborations: Editorial. *Human Resource Management Review* 31: 100834. [CrossRef]
- Teo, Stephen T. T., Diep Nguyen, Azadeh Shafaei, and Tim Bentley. 2021. High commitment HRM and burnout of frontline food service employees: A moderated mediation model. *Employee Relations* 43: 1342–61. [CrossRef]
- Thornhill, Adrian, and Mark N. K. Saunders. 1998. The meanings, consequences, and implications of the management of downsizing and redundancy: A review. *Personnel Review* 27: 271–95. [CrossRef]
- Top, Cemil, Bryar Mohammad Sharif Abdullah, and Akar Hemn Mahmood Faraj. 2020. Transformational leadership impact employees' performance. *Eurasian Journal of Management & Social Sciences* 1: 49–59.
- Van De Voorde, Karina, Jaap Paauwe, and Marc Van Veldhoven. 2012. Employee well-being and the HRM–organizational performance relationship: A review of quantitative studies. *International Journal of Management Reviews* 14: 391–407. [CrossRef]
- Walumbwa, Fred O., Bruce J. Avolio, William L. Gardner, Tara S. Wernsing, and Suzanne J. Peterson. 2008. Authentic leadership: Development and validation of a theory-based measure. *Journal of Management* 34: 89–126. [CrossRef]
- Wikhamn, Wajda. 2019. Innovation, sustainable HRM, and customer satisfaction. *International Journal of Hospitality Management* 76: 102–10. [CrossRef]
- Wright, Patrick, and Timothy Gardner. 2003. The human resource-firm performance relationship: Methodological and theoretical challenges. *The New Workplace: A Guide to the Human Impact of Modern Working Practices* 311–28.
- Wu, Long-Zeng, Zhuanzhuan Sun, Yijiao Ye, Ho Kwong Kwan, and Mengqi Yang. 2021. The impact of exploitative leadership on frontline hospitality employees' service performance: A social exchange perspective. *International Journal of Hospitality Management* 96: 102954. [CrossRef]
- Yamane, Taro. 1967. Sampling Formula. E-Book. Available online: www.albookez.com.
- Zhao, Xinshu, John G. Lynch, Jr., and Qimei Chen. 2010. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research* 37: 197–206. [CrossRef]

- Zhou, Abby Jingzi, Carl Fey, and H. Emre Yildiz. 2020. Fostering integration through HRM practices: An empirical examination of absorptive capacity and knowledge transfer in cross-border M&As. *Journal of World Business* 55: 100947. [[CrossRef](#)]
- Zhu, Weichun, Irene K. H. Chew, and William D. Spangler. 2005. CEO transformational leadership and organizational outcomes: The mediating role of human–capital-enhancing human resource management. *The Leadership Quarterly* 16: 39–52. [[CrossRef](#)]
- Zhu, Guohua, Yang Huang, Chun Wang, Linxia Lu, Tongming Sun, Miao Wang, Yanfeng Tang, Doudou Shan, Shuijin Wen, and Jinli Zhu. 2019. A novel coumarin-based fluorescence chemosensor for Al³⁺ and its application in cell imaging. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 210: 105–10. [[CrossRef](#)] [[PubMed](#)]
- Zumitzavan, Vissanu. 2014. The Impact of Different Styles of ‘Personal Knowledge Management’ and ‘Leadership’ on ‘Organizational Performance’: A Case of the Healthcare Industry in Thailand. Available online: <https://www.semanticscholar.org/paper/ea1bdf20b1984a1bb68c729e9386b479f04e433d> (accessed on 11 June 2021).