






Original research article

Roles of human resource management and quality management practices to improve productivity in hotel business of emerging economies

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ABSTRACT

Emerging economies are facing the dual challenge of enhancing productivity while maintaining competitive service quality. This study explores the interplay between Human Resource Management (HRM) practices and Quality Management (QM) practices in influencing productivity improvement. The authors examine how HRM practices in AMO framework can support productivity improvement via such QM practices as process management and continuous improvement. Statistical techniques including ANOVA and PLS-SEM are applied to analyze data collected from 120 hotels through the questionnaire survey. Analytical results reveal that Ability-enhancing HRM practices have the indirect effect on productivity improvement by the mediating role of continuous Improvement. In addition, process management is positively influenced by all dimensions of the AMO model, highlighting the significant role of HRM practices to support QM practices. These results emphasize the strategic importance of aligning HRM practices with QM initiatives to foster sustainable productivity growth in the service sector of emerging economies.

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1. Introduction

In the intensive competition of the service industry, improving productivity becomes vital for organizations to ensure service quality while cost pressures rise. As a result, service providers are constantly seeking ways to enhance productivity of human resources and maintain high service standards. Previously, Quality Management (QM) has been often studied as an effective way to enhance performance and pro-

ductivity [1]. In the new era of industry 4.0, Souza et al. [2] emphasized the significance of the integration between technology, quality and people. Particularly, their research highlights the role of human resources in QM which shares the similar viewpoint with Pelit and Katircioglu [3] who claimed that the high-performance requires effectiveness of Human Resource Management (HRM) practices, especially in service industry. It is also pointed out in their research that HRM is one of the most frequent topics in hospital-

ity domain [3]. Accordingly, there is a focus on the human aspect of service delivery, recognizing that a skilled and motivated workforce is fundamental to achieve organizational goals.

To explore these aspects, we adopt the approach of Socio-Technical System (STS) theory and contingency theory to solve the issues in productivity improvement in hotel service. Being developed from the open system theory of Von Bertalanffy since 1950, STS theory states that optimal organizational performance requires the synergistic interaction between the social (human) and technical aspects of work [4]. In the context of service industries, HRM practices represent the social element, encompassing aspects like training, development, and employee engagement. QM practices, on the other hand, constitute the technical dimension, focusing on establishing and maintaining efficient processes to ensure consistent service quality. Besides, contingency theory further emphasizes the need to tailor practices to the specific context of an organization to achieve higher business performance. Understanding how HRM and QM practices interact and influence each other within the service sector is crucial for achieving sustainable growth, especially in emerging economies.

Being named as a rising economy among emerging markets, Vietnam demonstrates the huge potential of tourism and hospitality. As a country in the Southeast Asia, Vietnam possesses many advantages of diverse landscapes with mountains, rivers, long coastlines and favorable climate which allow year-round tourism. In 2023, Vietnam has attracted 3.66 million international travelers and reached 101.3 million domestic trips [5]. The increasing number of travelers also drives the growth of hotels. However, like other emerging countries, Vietnam's hotel industry struggles to ensure service quality and enhance productivity. Despite a slight increase compared to 2022, Vietnam's labor productivity in 2023 remains significantly lower than developed nations like Singapore [6], [7]. Furthermore, hospitality industry in Vietnam suffers from a low return rate of less than 6% highlighting shortcomings in guest experiences [8]. In recognition of this challenge, by November 2023, Vietnam Prime Minister approved the National Program for Increasing Labor Productivity to 2030. Consequently, for Vietnamese hoteliers, implementing strategies to improve productivity is no longer just an option, but a pressing necessity.

Not only from practitioners, but the needs also to drive productivity improvement have been raised by many scholars. Apparently, though there have been

various studies on how to enhance performance by QM practices of Vietnamese firms [9], it has a primary focus on the manufacturing and production sectors. With the rise of service industry in Vietnam, there is a growing interest of the impact of QM in this sector [10], [11]. Particularly, in the service sector of emerging economies, not only QM but also its relationship with HRM gain more attentions. Scholars and industry leaders alike recognize the need for a comprehensive understanding of how these practices interact and their impact on productivity improvement. This is particularly relevant considering the constant pressure on service organizations to optimize their resources and enhance employee performance [10]. Given the limited existing research, this study aims to bridge this knowledge gap by investigating the interrelationship between HRM practices, QM practices, and their combined effect on productivity improvement in the service industry of emerging economies. Accordingly, our research question is presented as follows:

How is productivity improved by HRM practices and QM practices in emerging economies?

The main question of this study concerns with the influence of Ability, Motivation, and Opportunity dimensions of HRM practices and QM practices on productivity improvement in the service sector of emerging economies. To test the established hypotheses, statistical techniques including ANOVA and PLS-SEM are applied to analyze data collected from 120 hotels through the questionnaire survey. Analytical findings reveal that Ability-enhancing HR practices have an indirect effect on productivity improvement by the mediating role of continuous improvement. In addition, process management is positively influenced by all dimensions of the AMO model, highlighting the significant role of HRM practices to support QM practices.

2. Literature review

2.1 Human Resource Management and Quality management

The relationship between HRM practices and QM practices has been a topic of growing interest within organizational research. Specifically, their relationship has been studied to explore how they can impact organizational outcomes. Boselie and Van Der Wiele [12] applied a model based on the integrated

framework of various variables of HRM and TQM in Pauwee and Richardson's research and their impact on different organizational outcomes. Tari et al. [13] investigated a complex model that includes both QM practices including process management and continuous improvement and HRM practices. Their research demonstrates that those related to training and continuous improvement directly influence quality outcomes. However, other practices like process management and specific quality improvement techniques have indirect influence. Another research model proposed that hard QM practices partially mediate the association between soft QM practices and performance [14]. In this research, hard QM practices are stated to involve analytical and technical matters, such as process management and product control. On the other hand, soft QM practices focus on the human and behavioral aspects, including employee involvement, teamwork, human resources management [14]. This distinction also emphasizes the importance of human-centric approaches within QM. Similarly, Wiyatno et al. [15] reconfirmed the direct influences of HR practices on QM and operational performance.

The mediating role of QM was also confirmed in research of Jiménez-Jiménez and Martínez-Costa [16]. Their research suggests that TQM through various practices like leadership, training, and continuous improvement, partially mediates the association between HRM practices and business performance. They highlighted the indirect influence of HRM practices on performance, where effective HRM led to a strong TQM foundation, ultimately impacting business outcomes. Overall, the relationship between HRM and QM practices have been mentioned and studied to confirm their strong interconnection, especially in manufacturing firms [17], [18].

2.2 AMO model, Continuous improvement and Process Management

HRM practices have been studied and developed in different models and frameworks with the aim of enhancing the performance of employees and organizations. The Ability-Motivation-Opportunity (AMO) framework has been recognized and widely studied in contemporary HRM practices [19]. As being developed by Appelbaum in 2000 for High Performance Work System (HPWS), this framework introduced three dimensions: Ability-enhancing HR practices, Motivation-enhancing HR practices, and Opportunity-enhancing HR practices. HRM practices are now strategically designed to address each

component of the AMO model [20]. Bob-Neshles et al. [17] have reviewed and summarized commonly used HR practices for each dimension. Accordingly, Ability-enhancing HR practices are defined as practices to develop skills and knowledge for employees such as staffing, recruitment, training, development. Motivation-enhancing HR practices refer to performance management, compensation and benefits; and Opportunity-enhancing HR practices are the practices providing employees with opportunities for involvement, decision-making include the availability of supportive policies and practices such as information sharing and employee participation.

In hospitality industry, the AMO model has gained some attention as a framework for understanding the link between HRM practices and employee performance. Ruzic [21] employed the AMO model to explore how HRM practices directly influenced hotel company performance. His research confirmed a positive association between these practices and HRM-related outcomes at both the individual and organizational levels. This, in turn, indirectly impacted on the financial performance of the hotels. Similarly, Xie et al. [22] leveraged the AMO framework to examine the relationship between green HRM practices and employee behavior, with job satisfaction acting as a mediator. These studies demonstrate the growing recognition of the AMO model's effectiveness in analyzing linkage between HRM practices, performance and organizational outcomes.

On the other hand, QM refers to practices which facilitate other functions to obtain organizational goals and moderators which support strengthening relationships between other practices [1], [13], [14]. Traditionally, QM practices were heavily associated with the manufacturing sector [23], [24], where tangible products require rigorous quality control checks. However, in recent years, there has been a surge of interest in applying QM principles to the service industry [25]. This shift reflects the growing recognition that service quality is a critical differentiator for businesses in modern competition. Unlike manufactured goods, service quality is often intangible and depends on customer perception [12], [14]. As a result, QM practices that emphasize consistent delivery of excellent service experiences are becoming increasingly important for service organizations to thrive [25]. By implementing effective QM initiatives, service providers can ensure that customers receive high-quality service interactions every time, fostering loyalty and driving business growth.

Among many QM practices, continuous improvement which has been adopted by many companies

and gain acceptance in both academic and practical areas [26] and plays as a critical factor in QM. It was defined as a continuous process of checking requirements to find areas in which improvements can be made [27], [28]. The impact of continuous improvement has been explored. By minimizing unnecessary variations in workflow [26], continuous improvement leads to increased operational efficiency and ultimately, improved financial performance. Furthermore, continuous improvement can be viewed as a management philosophy that fosters a culture of continuous learning and adaptation [27]. Through continuous improvement, organizations refine their processes, develop employee skillsets, and enhance their ability to deliver high-quality products and services [26], [27].

The other component of QM in this research is Process management. Process management, usually included in the common term of Business Process Management, is a strategic management approach that deals with the policies, methods, and management practices used to coordinate and govern firms' processes [29]. Process management is a part of QM and should be treated as an integral part since it contributes to the procedural and systematic approach of QM [14], [29]. The importance of process control is also well recognized in improving quality of production [30]. Overall, it is obvious that continuous improvement and process management have been frequently mentioned and studied in QM research. In the context of Vietnamese firm, these two factors were also mentioned among scale to measure QM practices [9], becoming essential QM practices for organizations.

2.3 Productivity Improvement

Productivity improvement has gained significant attention from both academic scholars and practitioners [24]. The term *productivity improvement* is usually used in operation management research to refer to an expected positive outcome, thus it has been recognized as a fundamental factor of effective operation management [24], [31], leading to efficient workflow. Extensive research has established that productivity is influenced by many contextual factors unique to each industry and organization [23] and especially directly linked to various management practices such as effective leadership, strategic planning, and continuous improvement [27].

Despite the existing knowledge, a crucial gap remains in our understanding of how the combination of different management practices can lead to

an even more significant boost in productivity [24]. This research aims to address this gap by focusing on the interplay between HRM practices and QM practices. HRM practices encompass a range of initiatives designed to cultivate a skilled, motivated, and engaged workforce. This can include training and development programs, performance management systems, and employee recognition initiatives. QM practices, on the other hand, focus on establishing and maintaining efficient processes and procedures that ensure consistent delivery of high-quality services. It involves continuous improvement and process management which have been explained above.

Accordingly, the authors would introduce an integrated framework to demonstrate how HRM practices and QM practices can influence productivity improvement. By investigating the interconnected sets of practices, this research seeks to contribute valuable insights to the existing body of knowledge, supporting to understand how HRM and QM practices together can equip organizations with a more comprehensive strategy for sustainable productivity growth.

2.4 Analytical framework and hypotheses establishment

In the increasingly intensive competition, organizations are constantly seeking effective methods to improve productivity and quality, especially in service industry. Service organizations such as hotels aim to balance efficiency with quality customer service; thus, employee productivity and performance are critical factors. Social-technical systems (STS) theories offer valuable insights into this pursuit. Developed from open system theory by Von Bertalanffy in 1950, STS emphasizes the strong connection of social elements (employees, work practices) and technical elements (technology, tools, workflows) which are considered as two subsystems [4]. Optimizing productivity requires considering both aspects. As a result, STS theory has been applied in a lot of research in QM [23], [32]. For instance, implementing new technology requires training and performance management to ensure employees can leverage their full potential. Accordingly, this study will apply STS theory to explore the relationships between social-oriented practices (HRM practices) and technical ones (QM practices).

On the other hand, contingency theory has been widely adopted in QM research for its emphasis on specific contexts [23], especially contextual factors of successful QM implementation [33]. According to contingency theory, there is no one-size-fits-all ap-

proach so considering contextual factors is important to measure distinctive impacts of HRM and QM practices. Understanding the unique challenges and strengths of each industry and economy is crucial for identifying the most appropriate strategies to improve productivity.

Both STSs and contingency theories can contribute effectively to research on the effect of distinctive organizational factors. As a result, this study will utilize these two approaches to examine the effect of HRM practices and QM practices on improving productivity. By combining the insights from both theories, organizations in the service industry can foster a dynamic and productive work environment through enhancing their HRM practices and QM practices.

Based on the previous studies and above review, we propose the analytic framework in Figure 1 to demonstrate the relationship between HRM practices in AMO model and QM practices, how they can impact Productivity improvement.

First, QM factors have been proved to have strong correlation with HRM practices, especially training, employee participation or commitment [27], [34]. Training – an *Ability-enhancing HR practice* is usually a common method for improvement and facilitates *Continuous Improvement* [34] while employee involvement and commitment contribute to the success of *Continuous Improvement* [35]. Kumar et al. [27] also claimed the strong correlation of *Continuous Improvement* with Training and employee participation. The other HRM practices which are enabling factors of continuous improvement have been claimed as information sharing and performance management [27], [35]. Thus, the following hypotheses illustrate the relationship between AMO components and *Continuous*

Improvement in hotel service in Vietnam:

- **H1:** *Ability-enhancing HR practices* have a positive impact on *Continuous Improvement* in hotel business in Vietnam
- **H2:** *Motivation-enhancing HR practices* have a positive impact on *Continuous Improvement* in hotel business in Vietnam
- **H3:** *Opportunity-enhancing HR practices* have a positive impact on *Continuous Improvement* in hotel business in Vietnam

On the other hand, the relationship between HRM and *Process Management* remains an under-explored area in organizational research. While both disciplines are acknowledged as crucial for organizational effectiveness, the specific ways in which HRM practices influence *Process Management* have not been fully understood. Existing research suggests a correlation between certain HRM practices and effective *Process Management*, for example: information sharing [36], performance management [29]. Since this connection requires further investigation, the following hypotheses are proposed:

- **H4:** *Ability-enhancing HR practices* have a positive impact on *Process Management* in hotel business in Vietnam.
- **H5:** *Opportunity-enhancing HR practices* have a positive impact on *Process Management* in hotel business in Vietnam.
- **H6:** *Motivation-enhancing HR practices* have a positive impact on *Process Management* in hotel business in Vietnam.

As mentioned above, many studies have explored the positive impact of QM practices on organizational outcomes [1] as well as productivity in service

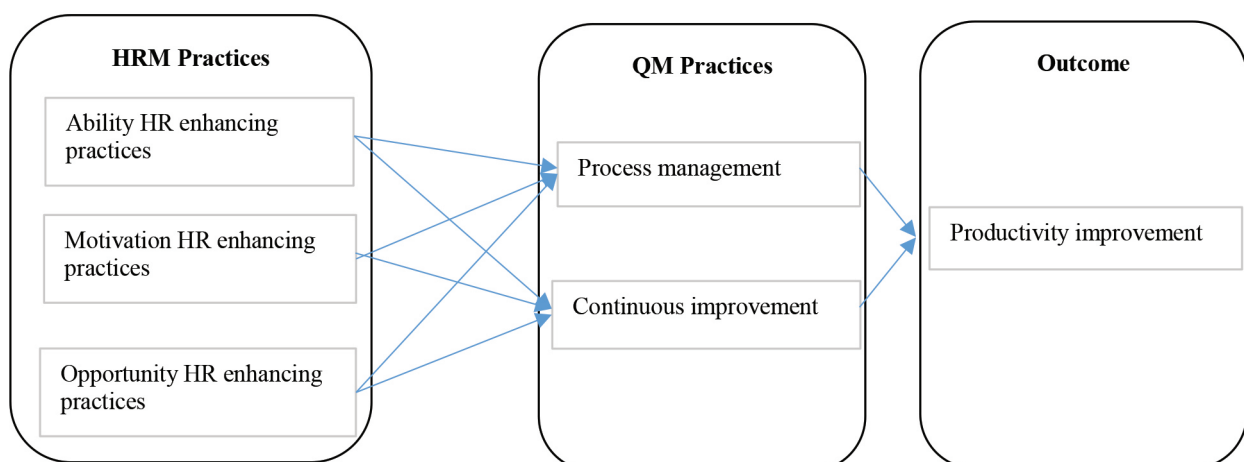


Figure 1. Proposed analytic framework

industry [2] [10]. Most studies have shown positive, direct and/or indirect, effects of QM practices on performance [1], [13], [14]; however, some studies report mixed results which mean both positive, negative and/or insignificant performance outcomes. For *Process Management*, it has been proved to have a positive impact on productivity in manufacturing industries [30], but few studied in service industry. The role of *Continuous Improvement* has been claimed to be crucial in achieving productivity gains [37]. Their findings demonstrate that a strong organizational motivation to engage in continuous improvement implementation is directly linked to effective application of productivity improvement methodologies within the organization. Essentially, this research sheds light on how empowering employees through *Continuous Improvement* initiatives contributes to the successful achievement of *Productivity Improvement* goals within organizations. Accordingly, the last two hypotheses are to re-examine the impact of QM practices on Productivity Improvement:

- **H7:** *Process Management* has a positive impact on *Productivity Improvement* in hotel business in Vietnam.
- **H8:** *Continuous Management* has a positive impact on *Productivity Improvement* in hotel business in Vietnam.

3. Methodology

This research employed a quantitative approach, utilizing structured surveys to gather data. Questionnaires were distributed to 160 hotels operating within Danang City, Vietnam. We received 122 responses, and after filtering out incomplete submissions, a final sample size of 120 usable responses was determined. To ensure representation, each hotel's designated re-

spondent was a member of the management board. A five-point Likert scale was used for each survey item, ranging from 1 (strongly disagree) to 5 (strongly agree). The demography of 122 hotels participating in our survey is presented in Table 1.

Notably, the majority of surveyed hotels are private owned as presented in Table 1. In addition, the small-scale hotels are dominant, employing less than 30 employees. In terms of operation years, most hotels are newly established within 5 years while only 10% have been in business for more than 10 years. This aligns with the context of hotel industry in Vietnam which contains mainly small, private owned businesses [5].

To conduct quantitative analysis, the researchers follow basic steps including checking reliability and validity, calculating correlations among variables and path coefficients. To test the proposed framework and hypotheses, we applied Partial Least Squares Structural Equation Modelling (PLS-SEM) - a multivariate analysis technique widely used in social sciences research. In the guidelines of PLS-SEM application, Hair et al. [38] have recommended this method if a study aims to balance explanation and prediction. Magno et al. [39] claimed that researchers in QM increasingly employ PLS-SEM. It was also stated that one of the key reasons for using PLS-SEM is its robustness even with small sample sizes. Becker et al. [40] agrees that the application of PLS-SEM fits well with modern research environment, including testing hypotheses and implying suggestions for management.

With only 120 observations, traditional SEM methods may face limitations due to sample size constraints. Therefore, PLS-SEM is more suitable for our samples and SmartPLS is the analytical software used in this research.

Table 1. Demography of surveyed hotels

Category	Details	Frequency	Ratio
Operation years	Less than 5 years	80	67%
	5 – 10 years	28	23%
	More than 10 years	12	10%
Ownership	Public-owned	4	3%
	Private-owned	114	95%
	Foreign invested	2	2%
Number of employees	< 30	99	82%
	30 – 100	14	12%
	>100	7	6%

4. Results

4.1 Measurement test

First, all constructs have been examined the reliability and validity as presented in Table 2. Construct reliability and validity was calculated via PLS Algorithm in Smart PLS. Accordingly, reliability is tested by Cronbach's alpha value. The literature suggested that alpha value should be more than 0.6. It is noticed that all measurement scales have high Cronbach's alpha values which are above 0.85, ensuring internal consistency. For convergence validity, average variance extracted (AVE) should be assured to be above 0.5 [38]. Table 2 shows that Cronbach's alpha and AVE values of all constructs have met requirements to ensure reliability and validity.

4.2 Correlation analysis

All variables have been checked for correlation analysis. It is shown in Table 3 that there is a bivariate correlation between AMO components and all selected dependable variables. Among AMO enhancing HR practices, *Opportunity-enhancing HR practices* have higher correlation with *Process Management* (0.781) while *Ability-enhancing HR practices* have relatively high correlation with *Continuous Improvement* (0.69). It can be noticed that *Productivity Improvement* is

slightly correlated with other variables with correlation value less than 0.5.

4.3 Path coefficients

Applying PLS Algorithms in SmartPLS, the results demonstrate direct, indirect and total effects of latent variables on dependent ones. As shown in Table 4, *Ability-enhancing HR practices* show relatively strong effect to *Continuous improvement* at 0.58 rather than the other two in AMO. All AMO-enhancing HR practices have a moderate impact on *Process Management*, with a coefficient value more than 0.3.

Next, Table 5 presents the values of R square and R square adjusted. It also can be seen from R squared values that the AMO model can explain or predict their relationship with QM variables, particularly 60% with *Continuous Improvement* and 76% with *Process Management*. However, *Productivity Improvement* can be predicted only 17% by QM practices in this study.

4.4 Hypothesis testing

To explore the relationships among the suggested variables, PLS-SEM has been applied by running Bootstrapping in Smart PLS software. The results are extracted with the p-value support to clarify proposed hypothesis. If p-value is less than 0.05, the hypothesis is supported. As shown in Table 6, only *Ability-en-*

Table 2. Descriptive analysis

Variables	Min	Max	Mean	SD	Cronbach's alpha	AVE
Ability-enhancing HR practices	1.00	5.00	3.64	0.68	0.87	0.65
Motivation-enhancing HR practices	2.00	5.00	3.77	0.65	0.86	0.64
Opportunity-enhancing HR practices	2.00	5.00	3.73	0.66	0.86	0.65
Process Management	1.00	5.00	3.78	0.68	0.89	0.71
Continuous Improvement	1.00	5.00	3.71	0.66	0.88	0.63
Productivity Improvement	1.00	5.00	3.31	0.69	0.85	0.58

Table 3. Correlation between AMO components and dependable variables

Names of variables	(1)	(2)	(3)	(4)	(5)	(6)
1 Ability-enhancing HR practices	1	0.638**	0.793**	0.740**	0.690**	0.407**
2 Motivation-enhancing HR practices		1	0.737**	0.754**	0.574**	0.193**
3 Opportunity-enhancing HR practices			1	0.781**	0.683**	0.353**
4 Process Management				1	0.659**	0.232**
5 Continuous Improvement					1	0.395**
6 Productivity Improvement						1

Note. **Correlation is significant at the 0.01 level (1-tailed).

Table 4. Decompositions of path coefficients

Dependent variables	Independent variables	Direct effect	Indirect	Total effect
Continuous improvement	Ability-enhancing HR practices	0.58	0.00	0.58
	Motivation-enhancing HR practices	0.18	0.00	0.18
	Opportunity-enhancing HR practices	0.09	0.00	0.09
Process Management	Ability-enhancing HR practices	0.32	0.00	0.32
	Motivation-enhancing HR practices	0.34	0.00	0.34
	Opportunity-enhancing HR practices	0.30	0.00	0.30
Productivity Improvement	Continuous Improvement	0.43	0.00	0.43
	Process Management	-0.03	0.00	-0.03
	Ability-enhancing HR practices	0.00	0.24	0.24
	Motivation-enhancing HR practices	0.00	0.06	0.06
	Opportunity-enhancing HR practices	0.00	0.02	0.02

Table 5. Coefficient of Determination

Variables	R square	R square adjusted
Continuous Improvement	0.60	0.59
Process Management	0.76	0.76
Productivity Improvement	0.17	0.16

hancing HR practices have positive effect on *Continuous Improvement* while all AMO enhancing HR practices have positive impact on *Process Management*. Regarding *Productivity Improvement*, *Continuous Improvement* illustrates strong effect while the hypothesis of *Process Management's* impact is not supported.

5. Discussion

5.1 Main findings

Drawing upon the principles of socio-technical theory, which emphasizes the relationship between social (HRM) and technical (QM) aspects of work, we explored how these practices interact to enhance productivity improvement. By examining these in-

teractions within the context of Vietnam's emerging service industry, our main findings are summarized as follows:

- *Productivity Improvement* is correlated with all AMO components as presented in Table 3. Additionally, it is impacted indirectly by HRM practices, specifically *Ability-enhancing HR practices*. This signifies that by empowering employees through effective training and development, organizations can indirectly contribute to increased productivity through a culture of continuous improvement. This also highlights the role of Training and development in service industry of emerging markets; thus, the key to be different in the fierce competition for hotels in Vietnam should be invested more.

Table 6. Summary of hypothesis test

Hypotheses	Path Coefficients	p	Result
H1 Ability-enhancing HR practices → Continuous improvement	0.579	0.000	Supported
H2 Motivation-enhancing HR practices → Continuous improvement	0.179	0.141	Not Supported
H3 Opportunity-enhancing HR practices → Continuous improvement	0.079	0.583	Not Supported
H4 Ability-enhancing HR practices → Process management	0.324	0.000	Supported
H5 Motivation-enhancing HR practices → Process management	0.340	0.001	Supported
H6 Opportunity-enhancing HR practices → Process management	0.301	0.005	Supported
H7 Continuous improvement → Productivity improvement	0.429	0.000	Supported
H8 Process management → Productivity improvement	-0.037	0.805	Not supported

- The mediating role of *Continuous Improvement* is confirmed. The results in Table 6 demonstrate a causal chain, wherein *Ability-enhancing HR practices* lead to *Continuous Improvement*, which in turn contributes to *Productivity Improvement*. The findings support existing research suggesting that Continuous Improvement acts as a key driver for productivity enhancement [26], [27]. Organizations that actively seek to refine their processes and service delivery mechanisms are more likely to experience gains in overall productivity. In the context of relatively low labor productivity like Vietnam, this result emphasizes the urgency of enhancing QM and HRM practices.
- The impact of QM practices on *Productivity Improvement* has been demonstrated. In addition to the direct effect of *Continuous Improvement* mentioned earlier, *Process Management*, while not directly impacting *Productivity Improvement* in this study, likely plays a crucial role in maintaining a baseline level of efficiency. Hotels with robust process management practices can ensure consistent service quality and minimize errors, guiding employees to act professionally in every situation.
- The strong relationships between HRM practices and QM practices are supported. Particularly, a strong positive correlation was observed between *Ability-enhancing HR practices* (e.g., training and development programs) and *Continuous Improvement* within sampled organizations. This result reconfirms previous findings [27], [32], [33] and suggests that when employees are equipped with the necessary skills and knowledge, they are more likely to actively participate in identifying and implementing improvements in service delivery. On the other hand, Motivation and Opportunity dimensions of the AMO model exhibited a weaker influence on *Continuous Improvement* compared to *Ability-enhancing HR practices*. This implies that while factors like incentives and work autonomy are important for overall employee engagement, they play a less direct role in fostering a culture of *Continuous Improvement*. On the other hand, all three dimensions of the AMO model (Ability, Motivation, and Opportunity) positively impacted *Process Management*. This result contributes significantly to the under-explored relationship between HRM practices and process management. The social aspects have shown supportive roles to technical ones in this research.

This also emphasized the significance of a well-trained, motivated, and empowered workforce to established procedures and maintaining efficient service delivery processes.

In general, *Productivity Improvement* is positively affected by QM practices and HRM practices. Specifically, *Ability-enhancing HR practices* have a significant influence on *Continuous Improvement*, which in turn acts as a mediator for productivity gains. All AMO dimensions contribute positively to *Process Management*, which acts as a foundation for maintaining service quality and efficiency. These findings emphasize the strategic importance of HRM practices in fostering a work environment that not only upholds efficient processes but also actively encourages *Continuous Improvement* – a critical driver for sustainable productivity growth in the service sector of emerging economies.

5.2 Implication

Theoretical Implications: This study contributes to the existing literature to improve productivity in service industry. First, we reconfirm the relationship between HRM practices and QM highlighted by STS theory. This approach has enabled better explanations of integrating technical oriented practices with social-oriented practices in the QM implementation for achieving expected performance. It expands our theoretical understanding of the mechanisms in the new approach of AMO framework. Specifically, the impact of *Ability-enhancing HR practices* has been proved, better explain the importance of Training and development to support QM practices in service industry. Moreover, the role of *Continuous Improvement* as a mediator was demonstrated. This research clarifies the crucial role of HRM practices in improving productivity via QM practices.

Practical Implications: The findings of this study provide practical insights for hotel managers in emerging markets in designing HRM practices and QM practices to improve productivity. The findings highlight the significance of a comprehensive approach to HRM, encompassing all aspects of the Ability-Motivation-Opportunity (AMO) model. However, a particular emphasis should be placed on Ability-enhancing practices, such as training and development programs. In the service industry, by equipping employees with the necessary skills and knowledge, organizations empower their workforce to perform tasks efficiently and effectively. Hotel managers should invest more in training programs to ensure

increased productivity and a stronger foundation for quality service delivery. For QM practices, a robust process management system acts as the foundation for consistent service quality and efficiency. As a result, organizations should maintain process management and ensure a baseline level of productivity. To actively drive productivity improvement, companies should foster a culture of continuous improvement, encouraging learning and innovation to implement better ways of working.

6. Conclusions

Overall, this study examines the roles of infrastructure practices including HRM and QM practices to improve productivity within the service industry of emerging economies, emphasizing its role in achieving sustainable growth and competitive advantage. The findings highlight the positive impact of the Ability dimension within the AMO model of HRM on productivity improvement and on specific QM practices. Specifically, *Ability-enhancing HR practices* significantly contribute to *Continuous Improvement*, a crucial aspect of QM, which in turn leads to *Productivity Improvement*. Additionally, the research reveals that *Process Management* is positively affected by all three dimensions of the AMO model. These results suggest useful implications for service organizations in emerging economies seeking to enhance productivity. First, service companies should foster a culture of continuous improvement by implementing effective Ability-enhancing HRM practices, such as training and development programs. Secondly, it is essential to maintain strong process management to ensure consistent service delivery and minimize errors. Therefore, focusing on both these aspects, driven by strategic HRM practices, service firms in emerging economies can gain sustainable growth and increased competitiveness within the global market. Further research could explore the specific HRM practices that most effectively cultivate a culture of continuous improvement and investigate the influence of other QM practices as well as contextual factors unique to emerging economies.

This study's findings are subject to limitations due to the relatively small sample size of 120 hotels. A larger sample would enhance the generalizability of the results, allowing for broader application of the conclusions beyond the specific hotels included in the research. Additionally, the study focused on a limited set of HRM and QM variables. Future research could benefit from exploring a wider range of

QM variables to provide a more comprehensive understanding of how QM practices interact with HRM practices to influence productivity in the service sector. This could include investigating specific aspects of quality control, customer satisfaction measurement, and employee involvement in quality improvement initiatives. To overcome these limitations, future research should expand sample diversity across regions and include multiple respondents for parts of the survey. More variables of QM should be tested as mentioned above. It will enhance robustness and provide valuable insights for HRM practitioners and researchers aiming to optimize organizational effectiveness.

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APPENDIX A

The appendix shows question items of all variables.

1. Ability enhancing HR practices

A1- The hotel implements orientation training for new recruits before official start

A2- The hotel organizes training courses for current staff

A3- The hotel assigns core employees (including managers and experts) to attend enhanced courses

A4- Employees are encouraged to attend industry seminars and workshop

A5- Employees are provided with clear career path

2. Motivation enhancing HR practices

M1 - Employees and managers are both responsible for career management

M2- The hotel encourages self-learning via promotion opportunities or incentives

M3 - The hotel always focuses on the importance of satisfying employees

M4 - The hotel has policies to motivate employees

M5 - Employees are provided with effective feedback on their performance

3. Opportunity enhancing HR practices

O1 - All hotel activities are well planned with clear objectives

O2 - All hotel activities are managed based on procedures focusing on service quality

O3 - The hotel has the systematic management documents publicly informed and applied

O4 - Inspection, supervision is usually conducted to ensure service quality

O5 - The hotel provides individual development via job rotation, allocation

4. Continuous improvement

CI1 - The hotel develops new environmentally friendly products/services

CI2 - The hotel expands the list of products/services provided to customers

CI3 - The hotel always improves product/service quality

CI4 - The hotel always improves flexibility in providing products/services

CI5 - The hotel always improves the speed of product/service delivery

CI6 - The hotel always improves efficiency and speed of product/service delivery for urgent needs

5. Process Management

PM1 - Hotel workers are trained in skills to improve customer experience

PM2 - Interaction and communication activities between employees and customers are carried out professionally, accurately, and in a friendly manner, satisfying customers.

PM3 - Internal interactions between employees and customers are professional and effective

PM4 - Internal interactions between employees when customers are not present are professional and effective

PM5 - The hotel focuses on customer care after-sale

6. Productivity Improvement

PI1 - Labor productivity has continuously grown over fiscal years

PI2 - The hotel's average revenue per employee grew significantly

PI3 - The average profit per employee of the hotel grew significantly

PI4 - The hotel's business market share has expanded significantly

PI5 - The hotel's competitiveness is significantly enhanced

PI6 - The rate of wasted investment capital in business is significantly reduced