

# Human Resource Management (HRM) Practices and Sustainable Organisational Innovation: A Staged Exploration of the Role of HRM based on a Dynamic Environment

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**Abstract.** The purpose of this study is to explore the roles of various HRM practices in the three stages of organisational innovation, considering a complex business environment. Because the research outcomes require presenting an analysis of the dynamic effects caused by different strategies and management actions in a social context, this dissertation decided to apply qualitative research. The researcher conducted in-depth semi-structured interviews with thirteen respondents from diverse companies and positions related to HR and strategy work. After completing the collection and analysis of the data, this study found that strategically aligned HRM and innovation could provide a valuable boost to future business development. Meanwhile, the researcher found value in providing a theoretical model to inform the rational choice of HRM practices in organisational innovation. This collected primary and secondary data helped this study to construct an Integration model of different HRM practices and stages of organisational innovation. The value of this Integration model includes a visual representation of a sustainable HRD flow framework and the way HRM is involved in innovation activities. Also, for managers, the model can be used to flexibly match various bundles of HRM practices to the three stages of innovation, resulting in better innovation performance.

**Keywords:** HRM Practices; Organisational Innovation; Integration Model; Staged Investigation and Analysis; Dynamic Macro Environment.

## 1. Introduction

The topic of this study is to construct an innovative integration model of human resource management based on different theories and rich data to fit the current environment. De Leede and Looise (2005) divided the role of HRM into two levels, including the organisational level and the specific level (including innovation stages and activities). The research dimension of this dissertation will primary emphasis on the second level, analysing and discussing the different roles of human resource management in the stages of innovation in a dynamic environment. First, the dissertation will summarise the impact of the macro environment on organisational innovation and HRM, including the changes made by HRM and the reasons why innovation activities are hindered. Second, the dissertation will identify the specific processes and stages of innovation activities used in the study based on the model of Tidd and Bessant (2020). Third, the dissertation will use the qualitative research method to conduct in-depth semi-structured interviews with 13 participants and build an integrated HRM and innovation model based on the interview data collected. The next part of the dissertation discusses the overall analysis results. The final part of the dissertation will summarise and limit the whole study and provide an outlook on the future of the research area.

## 2. Research Question

Building on existing research, to close the research gaps, the central question of this study is: *How should companies link HRM practices to the organisational innovation stages in a dynamic macro environment?* In order to better obtain answers, the research logic and specific questions of this study include:

1. What are the consequences of a dynamic macro environment for HRM and organisational innovation?

2. Is it necessary to integrate HRM and organisational innovation after the emergence of the consequences mentioned in question 1?

3. How should decision-makers better match HRM practices with the three stages of organisational innovation?

### 3. Methodology

#### 3.1 Choice of Methodology

In order to achieve the objectives of qualitative research about how to integrate HRM and innovation activities within organisations in a satisfactory way, the study adopted the grounded theory approach to conduct an interpretive inquiry based on an inductive and empirical research paradigm.

##### 3.1.1 Epistemological Positions

This dissertation chooses to use the interpretivism paradigm to achieve a deeper understanding of the target topic by way of inductive reasoning. Moreover, the combination of inductive and empirical research methods in this study is mainly reflected in the use of grounded theory and the analysis of primary and secondary data. The grounded theory of Glaser and Strauss (Khan, 2014) exploration and inductive results were derived from hypothesis-free data, and this theory is an iterative research approach involving the accumulation, analysis and testing of information (Knigge, 2017). The theory also involves the prediction and application of research topics (Glaser and Strauss, 2017). In addition, for the grounded theory method, it is crucial that the experience of key lifecycle practices is felt by each individual (Bryant, 2014), which is in keeping with the 'stage' element of this study; and this method often requires interview data as material to support the composition of the code (Bryant, 2014). As a result, the exploration and analysis of data in accordance with rooting theory can help to better meet the objectives of this study.

##### 3.1.2 Qualitative Research Method

This study adopted a qualitative research approach. A well-developed qualitative study that contributes to the presentation of the subjective feelings and behaviours of participants for this study while incorporating the social context (Fossey *et al.*, 2002) is consistent with the aim of exploring the relationship between HRM and innovation in a dynamic context. The study also focuses on the dynamic evolution of the relationship between the two based on changes in the external environment, which is a process-oriented study across time. Consequently, a qualitative approach is more appropriate and sufficient to meet this research question than the conventional numerical and statistical approach.

#### 3.2 Data Collection Method

##### 3.2.1 In-depth Semi-Structured Interview

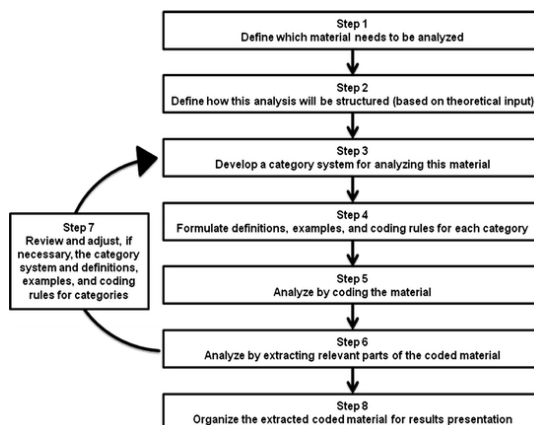


Figure 1. Qualitative structured content analysis  
Source: Adapted from Finkbeiner (2017, p. 153, fig. 6.3)

Interviews are the most common way of collecting data in qualitative research (Nunkoosing, 2005; Brinkmann, 2014; Qu and Dumay, 2011). It is undeniable that interviews are also an effective way of collecting data in inductive research due to the ability of interviews to bring to life answers and provide a bridge for communication (Kvale and Brinkmann 2009, cited in Mojtahed *et al.*, 2014). Each interview was conducted via a face-to-face format or email communication, using a time frame of approximately 50 minutes. The objectives of the study were achieved through the iterative review shown in this schedule

### 3.2.2 Interview Sampling Criteria

Having identified the purpose and specific methodology, the selection criteria for participants in this study consisted of five points. Senior staff and managers in organisational strategy or HR to ensure that the interviewees fully understood the interview content and thus generated rich and in-depth responses. In addition, participants working in different industries were selected to obtain a rich data source to increase diversity. The final point was that respondents had to speak Chinese or English and be over 18 years of age. Specific interview participant information is shown in Table 1. The invitees come from a variety of industries, ages, genders and positions.

**Table 1.** Interview Participant Information

Name	Age	Gender	Industry	Position Title	Interview Method
Yan	47	F	State Organs	Logistical Support	Face to Face
Wei Zhang	30	F	Financial	HR Director	Email
Jiayi Su	35	F	Construction	HR Director	Email
Lily	26	F	Manufacturing	HR Generalist	Email
Jing Li	28	F	Architectural	HR	Email
Lisa	28	F	Service	Director of Organisational Strategy Department	Email
John	42	M	Chemical	Minister of HR	Email
Wei	47	M	Energy	Administrator	Face to Face
Liang Liu	43	M	Airline	Director	Face to Face
Min	50	F	Medical	Director	Face to Face
Noah	35	M	Internet	Personnel Manager	Email
Hao Sun	30	M	Financial	HR	Email
Karina Chen	32	F	Transportation	Personnel Supervisor	Email

## 4. Analysis

### 4.1 Strategic Coherence

Through the data analysis process from interviews, this study found that the external environment has been found to have a direct and decisive influence on organisational human resource management

and innovation strategies. These influences directly lead to the need for HRM and innovation activities to be strategically aligned.

#### **4.1.1 HRM and Innovation Strategies Require Optimisation**

The first prominent theme is strategies require optimisation, which includes two sub-themes of changing human resource management and organisational innovation.

##### **4.1.1.1 HRM**

*"HRM as a strategic lever can effectively influence a business performance, it can integrate HR strategy with the overall business strategy of the company."* (Wei Zhang)

This means that the roles of HRM in the organisational function start to become centralised to adapt to the external environment. First, HRM has updated its management mechanisms and departmental structures to cope with the work dilemmas caused by the epidemic and technological change.

The advent of COVID-19 has changed recruitment, training and the many and varied daily office tasks. Leaders must overcome the difficulties of managing the workforce remotely and learn how to use the new digital office software. COVID-19 has made remote working the norm and is one of the main determinants shaping new decisions:

Specifically, in order to address the communication, return to work and mental health issues associated with telecommuting, interviewees provided a wealth of examples and solutions. First, the issues caused by communication may be solved by intelligent software while also requiring the HR department to call on all employees to work together:

Second, the lack of resources and high costs caused by the economic crisis and the epidemic also caught the eye of decision-makers in the HRM sector. As John mentioned in the interview:

Third, there is also a crisis in labour costs. The workforce costs exceeded expectations and further raised management difficulties. To counter this problem, Liang Liu is trying to find a balance between employee welfare policies and costs:

While the value of HRM is particularly important in a dynamic macro environment, HRM is also encountering many problems. For example, management mechanisms and departmental structures are changing. Meanwhile, web-based work systems resulted in communication difficulties, lack of resources, brain drain and higher costs. In response to these issues, HRM practices have begun to focus on the use of technology, clarifying workflows, attracting talents and prioritising strategic departments.

##### **4.1.1.2 Innovation**

For business innovation, macro-environmental influences can be both positive and negative. The environment makes innovation activities more flexible:

*"The covid-19 epidemic is both an opportunity and a challenge for organisational innovation in the business environment... Whereas in normal times we would go to traditional meetings, which are relatively lengthy and inefficient, now we make efficient use of online meetings to brainstorm, gather information and come up with solutions."* (Lisa)

However, the environmental impact brings a higher degree of a hindrance than the role of propulsion. Jiayi Su stated that when technical support cannot meet the needs of the organisation, cost budgets and day-to-day operations are negatively impacted:

*"... the impact of unfavourable external conditions on daily operations and business decisions has greatly increased the requirements for equipment intelligence, like intelligent sensors that are able to receive richer sources of commands, high-speed processors that are able to process large amounts of information... this requirement is a major challenge for the non-mechanical technology industry, as they need to purchase or outsourcing..."*

This answer implies that it is common practice in innovation activities to innovate technologically or to increase the budget for outsourcing or purchasing. In addition, *"the demand for technology has*

also led to an increased demand for innovative talent" and the need to focus on "balancing supply and demand in the market and continuously optimising individual innovation segments." (John)

Third, Lily shared her experience of "... a decline in effective demand for credit due to deep pockets... the cash flow of micro and small businesses engaged in consumption, commerce, services... is hampered, which is extremely detrimental to innovation activities." This is the innovation dilemma for small and medium-sized enterprises.

#### 4.1.1.3 Keeping Strategic Goals Aligned

It is apparent that the integration of HRM and innovation to achieve organisational goals is beneficial to organisational development. Moreover, the integration should be dynamic, which implies that decision-makers need to constantly adapt the HRM practices to organisational innovation:

"... HRM objectives should always be aligned with the organisation's strategic objectives of innovation, which are different at each stage: there is a need to enrich practical management tools, to promote the overall quality and job competence of workers, to focus on employee needs, and to strengthen training." (Jing Li)

To sum up, the dynamic macro environment influences HRM practices and organisational innovation activities. In order to adapt to these influences, HRM has changed the paradigm of its former practices, while organisational innovation activities have been hampered by technical and cost issues. Consequently, integrating organisational innovation and HRM is an effective way to bring value to organisations to better fulfil the established plans and counteract the negative effects of the external environment.

## 4.2 A Win-Win Situation

Based on the previous analysis, innovation activities and HRM practices are changing due to the constant influence of the macro environment. At the same time, integrating the two has proven to be necessary and beneficial for the organisation. As a result, the changed HRM and organisational innovation need to be reassessed and analysed. This study found the best match between the three stages of organisational innovation and different HRM practices through the interviews. This section will illustrate based on the stages of Figure 2.

### 4.2.1 Promoting Idea Generation: Idea and Concept Formulation Stage

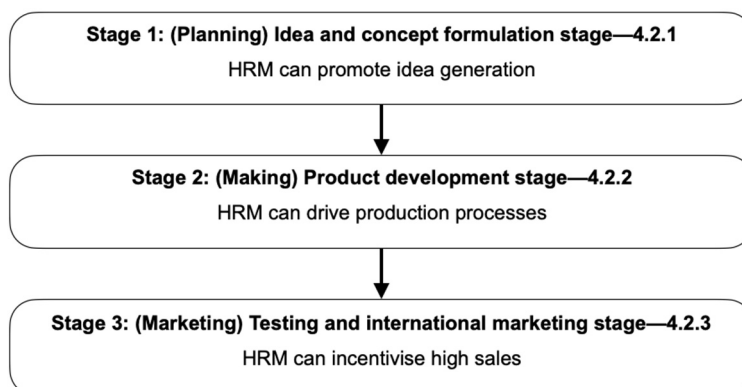


Figure 2. Structural diagram of 4.2

Organising the diversity of channels and richness of content for information and ideas is paramount at this stage.

"Our research has found that using creativity and innovation in the idea concept formulation stage to develop solutions is a priority for strategies... By increasing the variety and coverage of solutions, we seek to maximise crisis response and find an elegant and satisfying way forward." (Lisa)

#### 4.2.1.1 Creative Sources

Recruitment and training help to fill talent gaps effectively and to expand staffing in time to meet the demand for rich ideas:

According to Liang Liu, "*... recruitment and training is a part of HR planning that demonstrates the needs of the business, [including] the positions to be filled, their numbers and time requirements, as well as attracting candidates. These are the actual requirements for staff recruitment, which I strongly believe have a significant impact on complementing innovative ideas...*"

Specifically, one of the effective ways of finding talent is through internal job transfers and selection systems:

*"... I think there should be internal job rotation and internal transfers, [with the aim of] stimulating creativity and also enabling employees to have the opportunity to experience other positions and acquire new skills, which is also an important measure for the sustainability of organisational innovation in the long run."* (Wei)

#### 4.2.1.2 Strategic Workforce Planning

Through the interviews, this research found the highest percentage of respondents who believed that training was beneficial to innovative behaviour. Hence, the development of skills for employees in this phase of idea generation is essential and is applicable to most companies. There are a number of other respondents whose views could support this argument:

As a result, HRM practices that add value in the early stages of organisational innovation include recruitment, training, cross-departmental collaboration, performance management, and employee engagement and voice. Recruitment, training, employee engagement, and voice tools help to increase the diversity of innovative ideas, while training also aims to build strategic organisational workforce support; cross-departmental collaboration and performance management improve the productivity and efficiency of innovative activities. These positive effects that work together in an innovation plan will likely facilitate idea generation and maintain an effective process, especially applicable to the first innovation stage. These findings suggest that flexibility combine these HRM practices could bring dramatically good outcomes.

#### 4.2.2 Driving Production Processes: Product Development Stage

##### 4.2.2.1 Talents Support

First, recruitment and selection practices "*are the first step in selecting and tapping talent, and when in the initial development phase, good people can have a positive impact on the whole department, and the whole company, and are an integral part of the product development phase.*" (Jiayi Su).

Moreover, the main reason for choosing recruitment and selection, analysed in terms of the organisational strategic line of defence, is that "*after the formal launch of production, the managers' requirements for the job are clear, which means that the need for supervisory positions and the corresponding personnel is clear... so I believe that the better the recruitment and selection with a clear purpose, the better the quality of the supervisory personnel's work I think that the better the purposeful recruitment and selection, the better the quality of the supervisors' work will be...*" (Lily). Such measures may contribute to increased productivity.

Specifically, decision makers always choose to implement recruitment and selection during the production phase of a product primarily to provide the skills and adequate workforce support for the production of the product:

*"The introduction of highly qualified employees is a really important component. If you want to carry out the development of new projects, you must have the relevant talents; if you want to carry out the development of talents, you must change your HRM philosophy and manage people in a scientific and rational way..."* (John)

Grassroots employees are directly involved in manufacturing and are the most basic need of the company. The recruitment process for this category of employees must also not overlook the competencies and qualities of the employees. Yan elaborated:

"... after taking into account the actual production situation and staffing needs of the company, the recruitment standards of the company can be raised appropriately to ensure the quality of talent acquisition... In my opinion, 'people are more valuable than other tangible resources', and those [unskilled] employees who are the basic labour force in the manufacturing process are also very significant..."

Second, providing learning and training opportunities for employees could have a similar effect to recruitment. Lisa shared her experience to explain the contribution that training can make to production:

"... this stage requires a higher level of proficiency in the product, so frequent learning and training helps to innovate the product better, I mean it helps the staff to know what they should do and how to do it."

In addition, continuous learning and training could also stimulate the potential innovation of employees and create an effective interaction with the first stage:

"... often, even if the human element is provided by recruiting and selecting the right staff for innovation, it doesn't create a synergy, and in order to make the best use of that synergy to achieve the set production goals... it's extremely important to learn and train the staff through continuous learning and targeted training to create a new awareness of a new awareness of change and innovation..." (Wei Zhang)

However, the question of exactly when to implement training has become a controversial topic. For example, Wei believes that *"training should be conducted before the product development phase and after the idea formation phase in order to develop an overall concept of innovation."* A different view is that *"training should take place during product development...to gradually develop a sustainable development of organisational innovation through a step-by-step understanding of the changing needs in production."* (Min)

These two views should be distinguished according to different business situations. For example, this study argues that it is reasonable to conduct training before the product development stage when staffing levels are adequate. Staff training provides strategic HRM support for production and manufacturing inputs. However, the arrangements managers make for the specific delivery of training programmes should be tailored to different situations.

#### 4.2.2.2 Satisfactory Productivity and Staff Stability

At the same time, the use of employee motivation policies is instrumental in enhancing the overall productivity of the organisation:

"... employee motivation is significant, because there is no such thing as a person who is always able to maintain 100% of his or her full passion potential, the overall competencies of employees are constantly developed and honed in the workplace... and I value this very much! Especially in the development phase, where productivity and stability are particularly important... to achieve this, my role as a manager is to satisfy the material and spiritual needs of my staff to the fullest." (Hao Sun)

On the one hand the role of incentives is to meet the minimum requirements and Wei Zhang supported this view by stating that *"an innovation always has to be cut off from the previous one and some employees will not adapt to it..."*

Similarly, Karina Chen pointed out that *"... whatever development process is in place is based on a plan and the future is uncertain... employee motivation is a preparatory activity, urging people to be ready for uncertainty."*

This motivational effect helps to maintain employee stability. On the other hand, the use of incentives also leads to better innovation and drives the production process:

"... employee motivation leads to more inspiration and insight in product development. Stakeholders are more motivated... the overall coordination of people's willingness to contribute to the overall product progress." (Lisa)

Thus, the main advantage of using motivational strategies in the product innovation phase is to increase productivity while ensuring basic production, and also to reduce staff turnover. Furthermore, *"... as the market changes and in order to promote strategic production, HRM as a stakeholder department has gradually started to develop its own autonomous HR assurance model with its own characteristics..."* (Yan). This also suggested that managers could improve organisational performance and productivity through the application of performance appraisals.

To sum up, HRM practices, including recruitment, selection, training, employee motivation and performance management, could bring technical support, junior staffing, increased productivity and reduced staff turnover to an organisation. Hence, using these practices during the product development stage can help achieve the desired outcomes.

#### **4.2.3 Incentivising High Sales: Testing and International Marketing Stage**

##### **4.2.3.1 Sales Skills and Targets**

The role of interdepartmental collaboration in this stage is the strategic collection and distribution of market data, as Wei Zhang described: *"... production is now a kind of collaborative production... only when all departments work together, is it possible [to work] as a team to achieve the desired results."* Moreover, *"no one department and no one process could be neglected, and the whole system has to be rigorous and complete to achieve the desired goal..."* (Wei)

In addition, it is helpful at this stage in selling and advertising innovations to make the target market situation for the product and the current preferences of the target customers clear to each stakeholder:

*"HRM has the responsibility to coordinate the various departments with marketing and decision making responsibilities, to begin with marketing research... to analyse and distribute information and materials on market supply and demand in a purposeful and planned manner... so that all stakeholders can understand the current market situation and trends... HR services are maximise the assistance given to companies through the rationalisation of personnel... to ensure the development of marketing strategies and the flow of information."* (Yan)

##### **4.2.3.2 Employee Motivation for High Performance**

Second, for sales staff and all employees involved in marketing, employee motivation, sales skills, and marketing strategy are vital elements that managers need to consider and develop. "... I usually choose to identify and develop talent at this stage. As we have said before scientific and rational performance management is related to the achievement of business objectives, as well as to the level of commitment, liability, competencies, this affects the subsequent consistent production of results..." (Jiayi Su). Min also explained:

*"Building HRM appraisals and systems also needs to serve innovative strategic objectives by breaking down the strategic objectives into specific appraisal indicators for strategic operating units, like finance, marketing, production, personnel and the objectives of each functional department, which is the way we would normally use... but, the current HRM situation in corporate development shows a trend towards diversification and more complex work, which needs to be adapted to the innovation process..."*

The advantages that enhanced personalisation of performance management measures can bring to the sales stage include dedication, accountability, quality staff and workforce planning that is always in line with organisational strategy.

John agreed with this view by explaining specifically that *"... performance appraisal is a means of systematically assessing the performance and overall quality of an employee's capabilities and guiding them to work hard through the conclusions drawn. From the employee's point of view, the use of scientific performance appraisal management tools can stimulate the responsibility and motivation of the company's employees."*

Accordingly, the views of the interviewees imply that managers and HRM practitioners in the current environment are generally aware of the advantages of personalising the use of performance

management, thereby creating a sufficient impetus for increased employee initiative and high-performance outcomes in the marketing stage.

#### 4.2.3.3 Well-staffed and Effective Feedback

Third, the training and learning opportunities in this phase are dedicated to teaching employees objectives and sales techniques that are aligned with the marketing strategy, "... allowing employees to be fully engaged and to continuously improve their professionalism and various competencies to build a solid foundation for international marketing." (Noah)

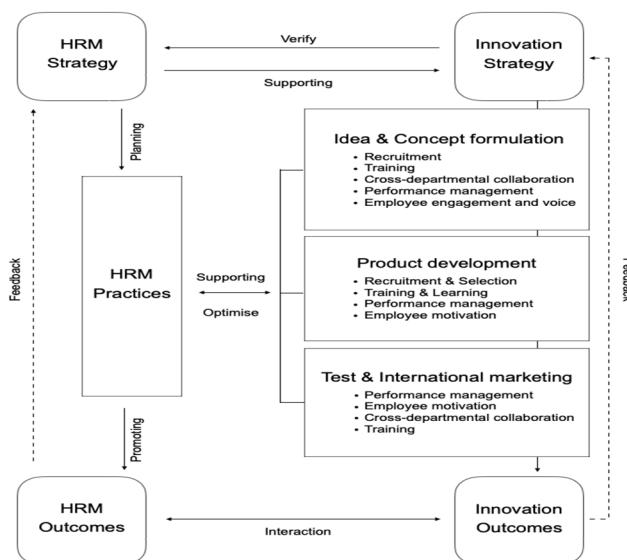
For the international marketing phase, "... the talent pool requires first and foremost the development of complex candidates, and through on-the-job training, employees acquire a wide range of skills while also tapping into the most suitable talent for international marketing." (Liang Liu)

Meanwhile, the simultaneous and flexible combination of these practices to achieve satisfactory results is the ultimate strategic aim of integrating HRM and innovation:

"The performance appraisal starts from the corporate objectives, breaks down the overall corporate objectives according to certain internal logical relationships and transforms them into departmental or even individual objectives; with perfect data and management first, the actual achievement can be reviewed on a monthly or even weekly basis, so that problems and deviations from the objectives can be identified in time for early remedial action." (Lily)

Thus, performance management, training, benefits and cross-departmental collaboration are effective HRM practices in the third phase of innovation activities. It is possible to achieve more than satisfactory strategic innovation results by applying the right HRM practices at the right stage of organisational innovation, which also proves that HRM and innovation should be strategically aligned.

### 4.3 An Integrated Model of HRM and Organisational Innovation



**Figure 3.** An integrated model of HRM and organisational innovation

In summarising the findings of the study and the literature review, an approach that integrates innovation and HRM is urgently needed by organisations. Based on the previous analysis of the interview data, this study identified the need for alignment between HR and innovation strategies and screened for effective HR practices for the three innovation phases. As a result, an integration model diagram for HRM and innovation was constructed based on these findings (see Figure 3). The entire model starts with organisational strategy and ends with innovation and HRM outcomes, reflecting a two-level integration process. The first level is where the whole organisation creates successful innovation outcomes through an integration strategy. The second level is where specific HRM practices are used as management tools to contribute to the different stages of innovation. In addition,

the impact caused by the dynamic macro environment is significant; the model also demonstrates that HR practices change in response to feedback from the phases of innovation activity. A similar situation occurs with the redeployment of strategy through the outcomes analysis. Thus, the model as a whole describes the interaction between HRM and organisational innovation.

## 5. Discussion

### 5.1 A Comprehensive View of Changing HRM and Innovation

There is no doubt that the external environment uncertainty is changing the behavioural paradigm of HRM, which means that vigilance in enhancing the dynamic environment is essential for HR practitioners. Technology and COVID-19 as two major environmental factors pushed HRM to adopt new paradigms. Agrawal *et al.* (2020) proposed to focus on the shaping of a resilient workforce in the current corporate environment and that leaders should apply rich HRM practices, including training new skills, improving performance and creating a core workforce in the midst of change. Also, technological advances have provided HRM with convenient office conditions (Huseynov, 2020), including high productivity, low turnover rates (Zheng and Yang, 2019) and good interaction efficiency (Valentine *et al.*, 2019), which has also led to a more robust development of new forms of employment, such as the odd-job economy (Connelly *et al.*, 2021). This new form of work has simultaneously brought strategic human resource management to the attention of organisations. Because Andres (2012, cited in Gilson *et al.*, 2015) suggested that the digital work environment has exacerbated communication problems within organisations, and the COVID-19 epidemic has forced employees to telecommute (Butterick and Charlwood, 2021). In addition, workforce health issues (Adams-Prassl *et al.*, 2020) are also difficulties for managers. These issues are forcing HR practitioners to modify the paradigms companies once worked with, and these implications are requiring HRM to begin aligning with organisational strategy. Managers are beginning to focus on digital-based HRM practices and personalised matches that increase environmental tolerance.

External influences also hinder the development of current organisational innovation, which means that innovation strategies also require transformation. Macro factors stimulate the demands to recreate new work paradigms and may even result in organisational behaviour to stop work to change work styles (Agrawal *et al.*, 2020), which is also a form of organisational innovation. First, the technology mix can be part of product innovation (Utterback and Abernathy, 1975), and technology can be a tool for creating innovation (White and Bruton, 2010). Second, force majeure on innovation may be both fatal and facilitative. For example, the need to include external factors as part of strategic deployment when making business decisions (Dibrell, Craig and Hansen, 2011) increases the burden on firms. Nevertheless, the COVID-19 epidemic as a specific external factor also provides a new nationalised platform for future innovation (Farrugia and Plutowski, 2020) in a way that might be able to act as an opportunity to promote innovation. As a result, when leaders recognised the possibilities these external factors would bring, companies changed the current innovation strategy to focus on developing sustainable organisational innovations that incorporate strategic HRM. This research perspective is based on a dynamic environment providing a comprehensive understanding of strategic change in HRM and innovation. Furthermore, the conclusion-based model is ultimately used to help analyse the complex relationship between HRM and organisational innovation in the contemporary environment.

### 5.2 Integrated Model of HRM Practices and Organisational Innovation

The main contribution of this study is to provide an integrated model that depicts the linkage between HRM and organisational innovation. As the impact of the dynamic macro environment intensifies, HRM and innovation to optimise and maintain strategic alignment become the next step in plans for leaders. From a long-term perspective, the integration of HRM into innovative behaviours could provide feedback for the design of strategic HRM practices, thus shaping a more efficient HR department. For example, the demand for an organisation to continuously promote innovation and

generate ideas has stimulated deeper thinking about workforce development (Shipton *et al.*, 2006). Meanwhile, innovation also places demands on the strategic planning and flexibility of HRM (Becker and Matthews, 2008). From the perspective of innovation activities, the study concludes that human resource management affects innovation (Shipton *et al.*, 2006; Laursen and Foss, 2003). In this regard, the contribution that the human element within the organisation can bring in order to meet the innovation requirement of the organisation is significant (Becker and Matthews, 2008). Overall, the new value economy has changed the way businesses operate, the way employees work, and the way stakeholders are connected; corporate business innovation is increasingly linked to the individual (Ramaswamy and Narayanan, 2022). These findings are also relevant to the critical capacity of people-centred HRM in organisational innovation.

Furthermore, this study has also found through the analysis of primary data that the current HR department and innovation strategy share similar future development goals, both of which are to improve organisational competitiveness and begin to seek mutual progress with stakeholders while adapting to the macro environment. Qamari, Dewayani, and Ferdinand (2019) have also confirmed this view by showing that the organisational environment allows innovation capability to be seen as a strategic tool, while HRM is seen as central to the implementation of strategic plans. This implies that the boundary between innovation and HRM is gradually becoming blurred, and the strategic location is becoming centralised. As HRM practices and organisational innovation behaviours have the ability to influence and drive each other, getting the two to go strategically aligned is a beneficial way forward for the organisation.

Concurrently, planning for a comprehensive strategy requires a phased approach to consider the effect of specific HRM practices on innovation outcomes. It is valuable to examine how tools should be configured to face the challenges (Bakanauskienė and Brasaitė, 2015; Becker and Matthews, 2008). For example, bundling HRM practices produce more substantial positive effects on innovation (Laursen and Foss, 2003; Easa and El Orra, 2020). For instance, HRM practices could facilitate the generation of ideas, drive the flow of production and increase the value of innovation outcomes. The contribution of transformed HRM to innovation is unquestionable; training away from the inherent thinking is more beneficial to the pre-innovation process; the value of motivation is recognised in the idea stage; and the value of assessment drives innovation in the implementation stage (Seeck and Diehl, 2017). Similarly, Shipton *et al.* (2006) proposed that the role of assessment, rewards and training in the implementation of innovation differs from that of the idea generation stage. Thus, this study uses the stages of innovation as a basis for classifying and selecting appropriate HRM practices.

In order to present the findings more visually, a model diagram is depicted in this research (Figure 7). The model visualises HRM and innovation with sustainability as the goal, the strategy, outcomes, practices and specific stages of how both operate. In addition, the model demonstrates the options for matching HRM practices to strategic innovation stages. The paragraph then describes this integration model in detail. First, the HRM practices illustrated in Figure 7 in the first stage of innovation all contribute to the generation of ideas and support for the groundwork. For example, recruitment can complement highly educated people with unique knowledge (Easa and El Orra, 2020). Training can also build a competent workforce (De Leede and Looise, 2005). In addition, applying employee voice and cross-departmental collaboration can enrich the channels for collecting ideas. de Azevedo, Schlosser and McPhee (2020) state that both practices provide opportunities for employees to express themselves. Second, the use of selection and hiring meets the technical needs and staffing expectations of the production process (Easa and El Orra, 2020), which is valuable for the product development stage. Easa and El Orra (2020) also identified the need to increase flexibility, motivation and autonomy in a dynamic environment to improve staff stability. Performance management and employee motivation are effective HRM measures to meet this demand. Third, for the final stage of innovation, employee support is the core and primary driver for enhancing innovation performance. Thus, as shown in Figure 7, performance management, employee motivation and training are all dedicated to developing employee skills and motivation. For example, training and work motivation effectively influence performance (Haryonoa, Supardib and Udina, 2020). This study takes the

findings of chapter 4 as the core, linking the three different innovation stages and multiple HRM practices together to form an integrated theoretical model, as shown in Figure 7. Overall, the HRM and organisational innovation integration model developed in this study show a way to combine the different stages of innovation and HR practice.

## 6. Conclusion and Recommendations

In conclusion, the purpose of this study is to explore the impact of human resource management practices on organisational innovation from a stage-by-stage perspective based on a dynamic environment. The contributions of these findings are multidimensional and could be presented from various perspectives. First, this thesis explored the impact of the external environment on human resource management and innovation. The dynamic macro environment is changing HRM and organisational innovation, with the environment constantly demanding change to achieve and sustain organisational innovation. HRM is becoming digital, which means easier working patterns and worse organisational communication. Managers also have to increase HR costs and link HR to organisational strategy. In addition, the impact of the environment on organisational innovation is complex, driving such innovation on the one hand and hindering it on the other. At present, the need for organisational innovation is enormous. Although COVID-19 provides a market opportunity for innovation, the lack of workforce and financial resources is hindering innovation. As a result, HRM and organisational innovation adapt to external changes through reforms. Second, this study collected rich primary data through in-depth semi-structured interviews that confirmed the strategic position of HRM and organisational innovation. The study found that strategic corporate alignment is an expected future direction for both sectors. This implies that there is value in integrating different HRM practices and organisational innovations. Thus, the third part of this study constructs an integration model of HRM and innovation based on the structure of the interviews. The model demonstrates a method for selecting appropriate HRM practices for the three innovation phases and a way to achieve sustainable innovation. For example, recruitment and selection could be used to provide technically competent talents to drive product development. HRM practices also contribute to innovation by using employee motivation practices to improve performance in the later stages of innovation and taking a cross-departmental collaboration to gather rich inspiration in the first stage.

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