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## When Silent isn't Golden: Measurement Validation Amo-Enhancing Hrm Practices in Malaysian Construction Firms

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### ABSTRACT

The current study validates AMO-enhancing HRM practices measurement in Malaysian construction firms' setting. The study pattern is cross-sectional. First, an examination of the literature was conducted to find out the fundamental components of AMO-enhancing HRM practices and the relevant items. Following that, these items were subjected to content validity with academic specialists. These items were administered to collect data from construction firms. Partial Least Square-Structural Equation Modeling (PLS-SEM) was employed as AMO-enhancing HRM practices were framed as a reflective-formative second-order construct. After that, AMO-enhancing HRM practices were assessed using reliability and validity examination. The result revealed that AMO-enhancing HRM practices have three dimensions: ability-, motivation- and opportunity-enhancing HRM practices. AMO-enhancing HRM practices are defined by these three dimensions, which collectively encompass various aspects of AMO-enhancing HRM practices. If any elements are excluded, AMO-enhancing HRM practices may be altered. This study is unique when conceptualizing AMO-enhancing HRM practices as a multidimensional construct comprising three dimensions, which had not been investigated in prior studies.

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## **Introduction**

In a strong competitive environment, stakeholders need all useful components of a company, including human resources, to exhibit their effort to achieve and secure employees to accomplish the company goals (Zaumane & Lescevic, 2021). Thus, using employees to develop competitive success expects to pay close observation of the practices that exploit these employees, i.e., Human Resource Management (HRM) practices (Cooke, Schuler & Varma, 2020). Human Resource Management (HRM) practices refer to the internal rules and policies to ensure employees accomplish the company goals (Delery & Doty, 1996). HRM practices are often performed by an organization's HR department to bring, advance, and keep its employees (Tay, Tan & Yahya, 2017a). In the literature, several labels for HRM practices have been described (Al-Tit, 2020). For example, "Human Resource (HR) practices," "socially responsible HR practices," "change-oriented HR practices," "high-performance HR practices," "high-commitment HR practices," and "high-involvement HR practices."

The cause for such discrepancy is the objectives of adopting such HRM practices (Mariappanadar, 2020). For instance, socially responsible HR practices attempt to improve all aspects of an employee's life as well as meet their social and personal expectations, while change-oriented HR practices do not. Although HRM practices are labeled differently in the literature, they are all tied to the attainment of organizational goals (Tay et al., 2017a). Recent literature has focused on the crucial role of high-performance HR practices by the ability, motivation, and opportunity (AMO) framework, claiming that the AMO framework's three essential dimensions: ability-, motivation- and opportunity-enhancing HRM practices (Appelbaum, Bailey, Berg & Kalleberg, 2000) are multiplicative to support various organizational outcomes such as organization innovation, productivity, turnover, quality and satisfaction (Hassan, Johar & Nor, 2020). AMO-enhancing HRM practices are often viewed as being beneficial for the organization because adoption improves competency, inspiration, and employee recognition when involved in work-related resolutions (Cooke et al., 2020).

Despite the active voice, validating AMO-enhancing HRM practices measurement has not received exhaustive coverage in the literature. Much effort into AMO-enhancing HRM practices has discussed the positive outcomes (Ruiz-Palomino, Gutierrez-Broncano & Jimenez-Esteviz, 2021; Huertas-Valdivia, Gallego-Burin, Castillo & Ruiz, 2021), with little discussion on the valid and reliable measurement of AMO-enhancing HRM practices specifically in the Asian context. Although Al-Shawani (2020), Kundu and Gahlawat (2018), and Li, Jia, Seufert, Hu and Luo (2021) have used AMO-enhancing HRM practices measurement in the Asian context, however, these studies have drawbacks. For example, these measurements consider only technology and insurance companies' responses to AMO-enhancing HRM practices, leading to the principles of AMO-enhancing HRM practices in the construction sector were not completely demonstrated. Thus, it is questionable whether their measurements can accurately validate the construction sectors' AMO-enhancing HRM practices. Besides, the meaning and pattern of AMO-enhancing HRM practices may contradict cultures or, more specifically, nations. Western language, economic, social, and political systems design AMO-enhancing HRM practices measurement differently. Such makes us uncertain whether AMO-enhancing HRM practices measurement validated in Western countries guaranteed to be used in Asian workplaces. On similar lines, Dahiya and Rangnekar (2020) claim that a measurement using different samples (e.g., Western countries) should be validated with other samples (e.g., Asian) to scrutinize the universal application. Thus, there is a need for a new research agenda routed in AMO-enhancing HRM practices measurement validation.

Besides, another problem of the AMO-enhancing HRM practices literature is that the application and empirical testing are highly fragmented and unsystematic across studies. This can be seen in some studies had been independently empirically tested in three dimensions (Al-Tit, 2020; Hassan et al., 2020; Tensay & Singh, 2020), whereas some had analyzed three dimensions as a whole construct (Gardner, Moynihan, Park, and Wright, 2011; Malik & Lenka, 2019; Nor, Johar & Khairi, 2021; Tian, Cordery & Gamble, 2016). This is to say, different approaches to AMO-enhancing HRM practices' empirical validation have been used in different studies, enclosing different angles of AMO-enhancing HRM practices. As such, this tendency is extremely hard to interpret, compare studies, and make a solid conclusion regarding the validity of AMO-enhancing HRM practices measurement. How can these different viewpoints be resolved? Are AMO-enhancing HRM practises measurement valid and reliable enough to be applied in other industries such as construction? In responding to these

questions, the study accepts the missing piece is to assess the validity and reliability of AMO-enhancing HRM practices following rigorous procedures.

The study made the following contributions. First, the accessibility of AMO-enhancing HRM practices measurement would deliver unique aspects of measurement validation in the Malaysian context. Second, such measurement helps future studies by providing concrete, actionable, practical suggestions about measurement issues. Third, construction firms will derive from a validated AMO-enhancing HRM practices measurement by obtaining a clear definition, specific construct, and items that assist them in the implementation of AMO-enhancing HRM practices effectively. The study had four sections. The first section reviews the literature on AMO-enhancing HRM practices and describes how it is measured. The second and third sections mention the research methodology, followed by the data analysis method and results discussion. Section four discusses the implications, limitations, and future research suggestions in the area of AMO-enhancing HRM practices.

### **AMO-enhancing HRM Practices Definitions**

Nicolas-Agustin, Jimenez-Jimenez, and Maeso-Fernandez (2022) defined HRM as a method to recruit, train, encourage, and keep personnel to operate in a way that is in line with the company's strategy. Ludwikowska (2022) claimed that HRM is a thorough approach to employment and individuals' growth, from hiring and selecting the best candidates to employees' dismissal. For Leroy, Segers, van Dierendonck and den Hartog (2018), a series of

macro-level actions, activities, and responsibilities are known as HRM practices to describe employees' treatment in the organization. Alternatively, Guerci, Radaelli, Siletti, Cirella, and Rami Shani (2013) referred to the target of HRM practices as improving employees' ability, motivation, and opportunity (AMO) to meet company objectives. Upon review of these definitions, this study adopts Guerci et al.'s (2013) definition because it provides a more comprehensive definition of AMO-enhancing HRM practices and specifically identifies how ability-, motivation-, and opportunity-enhancing HRM practices are beneficial for organizational sustainability. Ability-enhancing HRM practices are the company employing, hiring, screening, educating, and advancing to enhance employees' ability to function (Li et al., 2021). Searching for prospective hires and selecting the best individuals who meet certain staffing needs is the goal of hiring and screening methods (Bello-Pintado & Bianchi, 2020). Education and advancement boost their skills and expertise by equipping employees with the necessary information and abilities to do their jobs (Edgar, Blaker & Everett, 2021). Motivation-enhancing HRM practices employ performance management and rewards to boost workers' desire to work (Park, Bae & Hong, 2019). While their work is recognized with equal wages and incentive pay, employees are encouraged to put in more effort at work (Mansour, 2022). Employee participation strategies used by the organization to improve employee engagement are known as opportunity-enhancing HRM practices (Ferrarini & Curzi, 2022). In particular, opportunity-enhancing HRM practices include decision-making authority, job design, and task significance that impact employees' perception that they have chances to contribute to the organizations (Karim & Majid, 2022).

### **Literature Gaps**

As mentioned previously, the effectiveness of AMO-enhancing HRM practices such as enhanced service innovation (Kakakhel & Khalil, 2022; Ruiz-Palomino et al., 2021), employee engagement (Huertas-Valdivia et al., 2021; Tensay & Singh, 2020), organizational citizenship behavior (Sallas-Valina, Pasamar & Donate, 2021; Yang, Kim & Kim, 2021) and productivity (Bayo-Moriones & Bello-Pindado, 2021; Fernandez, Cespedes-Lorente & de Burgos Jiménez, 2021) have been made empirically. Despite numerous studies identifying the usefulness of AMO-enhancing HRM practices, no initiatives have been taken to examine its reliability and validity in the Malaysian context because these studies concentrated on Western countries. As such, AMO-enhancing HRM practices measurement cannot be fully applied in the Malaysian context due to different cultures and beliefs (Tay, Tan, Yahya & Rasli, 2021). For example, Malaysians encourage group rewards and consistent advancement, while Western countries focus more on individual prizes, salary packages, and personal career development. From a research standpoint, intellectual growth is hampered by the absence of a reliable AMO-enhancing HRM practices measurement (Ponsignon, Smith & Smart, 2020).

Besides, the empirical testing of AMO-enhancing HRM practices is inconsistent across studies because different studies use different ways to analyze AMO-enhancing HRM practices. For example, the dimensions of AMO-enhancing HRM practices were analyzed as a whole construct by Nor et al. (2021), and three dimensions were analyzed separately by Tensay and Singh (2020). Thus, the interpretation of the results will unavoidably be impacted. For example, both Nor et al. (2021) and Tensay and Singh (2020) use AMO theory to understand AMO-enhancing HRM practices. It was discovered that there are significant disparities between the variances of explaining AMO-enhancing HRM practices in these two studies, which brought by different ways to analyze AMO-enhancing HRM practices as suggested by Tay et al. (2021). Such differences create problems in comparing and interpreting the validity of AMO-enhancing HRM practices measurement. Further, the existing studies are industry-specific. Thus, it may not be relevant for construction firms because they have unpredictable completion of construction operations and project customization to improve client happiness (Samimi & Sydow, 2021). These research gaps motivate the study to investigate the reliability and validity of AMO-enhancing HRM practices measurement.

## **Methodology**

### **Research Design**

Considering the study goal is to validate AMO-enhancing HRM practices measurement created by Guerci et al. (2013), quantitative research using an online questionnaire survey was employed (Bougie & Sekaran, 2019). Thus, this study adhered to the recommendations made by Tay et al. (2021) and Tay, Tan, and Leow (2022) about measurement validation. The steps that make up the measurement validation effort are explained in the section below. The first step used an expert panel to examine and verify the measurement items. Based on the expert panel results, the items were slightly modified. It links to the next step, i.e., pilot-tested the updated items in a sample of 50 construction firms. Given the excellent reliability value of updated items, this study ran a confirmatory factor analysis in a sample of 246 construction firms. This study examined the reliability and validity of AMO-enhancing HRM practices measurement based on confirmatory factor analysis by using partial least squares structural equation modeling (PLS-SEM) through SmartPLS 3.0 as recommended by Hair et al. (2021).

### **Population, Sample, and Data Collection Process**

The population is 2745 Grade 7 construction firms in the Construction Industry Development Board (CIDB) directory of Malaysia. Grade 7 construction firms are large-sized construction firms with unrestrained tendering capability (CIDB, 2020). Another reason for the selection is Grade 7 construction firms have specific features and unique AMO-enhancing HRM practices compared to manufacturing, hospitality, and retail industries (Ameh & Daniel, 2017; Keegan & Den Hartog, 2019; Samimi & Sydow, 2021). This is defined by the unpredictability of the construction activities' accomplishment and project personalization to develop clients' fulfillment (Keegan & Den Hartog, 2019; Samimi & Sydow, 2021).

The estimated sample size is 338, following Krecjje and Morgan's (1970) principle. To avoid a low response rate, the final sample size is doubled to 676. Each fourth unit of construction firms in the directory was picked using a systematic sampling technique. It took 676 construction firms to be selected from the directory after repeating these processes. Following the initial contact with these 676 selected construction firms, 623 accepted to participate in the online survey, and they agreed to appoint their human resource manager as a firm representative to respond to the online questionnaire. This is because the human resource manager is in charge of the firm's internal labor market, including the implementation of AMO-enhancing HRM practices (Tay et al., 2017a). Therefore, the web link to an online survey was sent via email to the respective human resource managers of these 623 construction firms. (Tay et al., 2017a). Within two weeks' completion time, 271 construction firms' responses were collected, thereby leading 43.5% response rate. This was considered satisfactory relative to the response rate of prior studies. Bhatti, Zakariya, Vrontis, Santoro, and Christofi (2020) had 41.4%, whereas De Reuver, Van De Voorde, and Kilroy (2021) obtained a 26.2% response rate.

Twenty responses were removed because respondents chose the same answers for online surveys and respondents had not met the criteria, i.e., Human Resource Managers. This resulted in a final 251 responses for further analysis. Most of the respondents had Malaysian ownership (69.5%), were

managed by professional teams (57.3%), had access to the domestic market (58.1%), and had 11-15 years of experience in the construction industry (31.3%).

### Measurement

AMO-enhancing HRM practices measurement was adapted from Guerci et al. (2013). Earlier research (Tay et al., 2017a) used Guerci et al. (2013) measurement to describe a good reliability coefficient. Guerci et al.'s (2013) measurements are also relevant to the business organization setting. Its items and dimensions fully captured AMO-enhancing HRM practices. Thus, it is appropriate for this study. The measurement consists of 18 items, each of which was given a rating on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). These 18 items are categorized into three dimensions: ability-enhancing HRM practices (7 items), motivation-enhancing HRM practices (4 items), and opportunity-enhancing HRM practices (7 items).

### Experts' Review

This study utilized an expert panel to review, refine, and revise measurement items following the Boateng, Neilands, Frongillo, Melgar-Quinonez, and Young (2018) practice. To perform the expert panel, this study identified four researchers who are experts in Human Resource Management areas and who had experience developing scales related to Human Resource Management. Referring to Zamanzadeh, Ghahramanian, Rassouli, Abbaszadeh, Alavi-Majd, and Ali-Reja (2015), an expert panel requires a minimal number of three and a limit of ten experts for a satisfactory outcome. After that, four researchers agreed to participate in received appraisal sheets to determine if measurement items are useful, understandable, and necessary. The appraisal sheet contained the constructs' meaning, Likert scale, items, guidelines, and opinions (see Appendix 1).

Every item's usefulness to the construct had to be rated by the four researchers on a four-point scale including 1=not relevant, 2=somewhat relevant, 3=quite relevant, 4=highly relevant following Rodrigues, Adachi, Beattie, and MacDermid's (2017) practice. The use of a four-point rating can avoid neutral points (Obermiller & Spangenberg, 1998). The four researchers' ratings were computed to get the Content Validity Index (CVI). When calculating CVI, the whole items are divided by the summation scores for relevant and highly relevant items (Adachi et al., 2017). Table 1 shows that CVI was larger than the threshold value, 0.70. Referring to Polit, Beck, and Owen's (2007) suggestion, a minimum of 0.70 CVI has excellent content validity. In summary, the four researchers verified that all items developed to measure AMO-enhancing HRM practices are appropriate and qualified and that no items must be dropped in the expert review process.

Additionally, further refinement of the measurement items was accomplished by soliciting feedback from experts. Firstly, standardizing the words to produce coherence. For instance, "firm" was changed to "organization." Secondly, revise the vague statements to ensure clear and specific statements. For instance, "training interventions that focus on the values of the organization" was changed to "this organization has training that focuses on the values of the organization." Appendix 2 illustrates original and modified items for AMO-enhancing HRM practices.

**Table 1.** CVI for AMO-enhancing HRM practices

	Expert responses			
	1	2	3	4
<b>AMO-enhancing HRM Practices</b>				
"Not relevant" and "somewhat relevant" items.	1	2	2	0
"Quite relevant" and "highly relevant" items.	17	16	16	18
Total	18	18	18	18
CVI	0.94	0.88	0.88	1

Note: 1=not relevant, 2=somewhat relevant, 3=quite relevant, 4=highly relevant; CVI=Content Validity Index

### Pilot Test

A pilot test was then developed with construction firms to verify their comprehension level about AMO-enhancing HRM practices measurement items and questionnaire instructions clarity. Wong and Kim (2020) claim that a pilot study plays a crucial role before data gathering to weed out ambiguous questions from the questionnaire. To perform the pilot test, an online survey's web link was sent via

email to 100 Grade 7 construction firms in Penang, specifically to Human Resource Managers. 100 Grade 7 construction firms in Penang were chosen because they were excluded from the actual data collection. According to Tay et al. (2021), pilot test samples are around 30-100 to determine the questionnaire's appropriateness. Within a week of data collection, 60 participants returned the questionnaires. Ten questionnaires were discarded due to no response variation and irrelevant respondents (i.e., HR Managers), resulting in 50 questionnaires being used for further analysis. Statistical Package Social Science (SPSS) Version 28 was then used to examine the reliability test. Table 2 displays the reliability results of AMO-enhancing HRM practices. Furthermore, Grade 7 construction firms' responses to questionnaires were gained. All statements were determined to be comprehended by the respondents. Hence, no revision was made, and the questionnaire is ready for administration.

**Table 2.** Pilot study reliability result

<b>Constructs</b>	<b>Cronbach's Alpha</b>
AMO-enhancing HRM practices	0.956
Dimensions	Cronbach's Alpha
Ability-enhancing HRM practices	0.903
Motivation-enhancing HRM practices	0.906
Opportunity-enhancing HRM practices	0.897

## **Findings**

### **Data Screening**

Data screening involves missing data, univariate/multivariate outliers, and normality examination. No missing data or univariate outliers were found among the 251 data, according to the SPSS results. Nevertheless, the Mahalanobis distance that was larger than the chi-square scores of 20.515 (df=5;  $p < 0.001$ ) was found in five data, considered as multivariate outliers. These multivariate outliers were eliminated as a result. Only 246 data were then allowed for additional investigation. The Z-values for skewness and kurtosis in terms of normality were below 3.29, and the AMO-enhancing HRM practices constructs looked to be normally distributed.

### **Reliability and Validity Testing**

#### **First-order Examination.**

Ability-, motivation-, and opportunity-enhancing HRM practices are three dimensions that make up the multidimensional construct known as AMO-enhancing HRM practices. When using Partial Least Square-Structural Equation Modeling (PLS-SEM) for analysis, the three dimensions were first-order constructs. Meanwhile, AMO-enhancing HRM practices were a second-order construct. Having said that, this study suggests AMO-enhancing HRM practices were a second-order formative construct formed by the three first-order constructs, namely ability-, motivation-, and opportunity-enhancing HRM practices. A rise in ability-enhancing HRM practices may be linked to an increase in AMO-enhancing HRM practices, although not necessarily in connection with any adjustments to motivation- and opportunity-enhancing HRM practices. These three first-order constructs lacked a common topic. Constructions were neither related nor replaceable to one another. Further, they jointly described AMO-enhancing HRM practices since they were distinct constructs.

Alternatively, three first-order constructs were reflective because their items appeared in the corresponding structures. For instance, hiring employees who show moral concern and the development of ethical leadership programs were embodied by the ability-enhancing HRM practices construct. Additionally, the items might be used alternatively, especially if the contents were identical. For instance, the items in ability-enhancing HRM practices express that organizations employ hiring, screening, education, and advancement to enhance employees' ability to function. Therefore, the definition of ability-enhancing HRM practices was not altered by the removal of one of these replaceable items.

Besides, convergent validity and discriminant validity were used to evaluate the reliability and validity of first-order constructs. The first-order constructs are represented by every one of the suggested items according to convergent validity (Carmines & Zellar, 1979). Item loadings, composite reliability (CR), and average variance extracted (AVE) were employed to assess the convergent

validity (Hair, Hult, Ringle & Sarstedt, 2021). The connections between the items and the construct are known as item loadings (Hair et al., 2021). Items with loadings above 0.70 are powerful and ought to be kept (Hair et al., 2021). Table 3 demonstrates that all item loadings were more than the threshold value of 0.70. The constructs' internal consistency, as assessed by CR, is meant by the constructs' reliability (Cataldo, Grassia, Lauro & Marino, 2016). When the CR values were greater than 0.70, the construct was considered to have CR (Bagozzi & Yi, 1988). AVE explains how much construct accounts for the dispersion in the items. When the AVE is more than 0.50, satisfactory convergent validity is attained (Hair et al., 2021). The AVE values of the first-order constructs were above the threshold of 0.50. Overall, the convergent validity of the first-order constructs is satisfactory.

**Table 3.** Items loadings, CR, AVE

First-order Constructs	Items	Loadings	CR	AVE
Ability-enhancing HRM practices	A1	0.851	0.949	0.727
	A2	0.899		
	A3	0.832		
	A4	0.874		
	A5	0.834		
	A6	0.823		
	A7	0.854		
Motivation-enhancing HRM practices	M1	0.917	0.949	0.727
	M2	0.907		
	M3	0.909		
	M4	0.894		
Opportunity-enhancing HRM practices	O1	0.865	0.950	0.729
	O2	0.852		
	O3	0.854		
	O4	0.864		
	O5	0.868		
	O6	0.857		
	O7	0.815		

Note: CR=composite reliability; AVE=average variance extracted.

Additionally, discriminant validity measures how distinct a construct is from other constructs (Hair et al., 2021). The AVE requirement, based on Fornell and Larcker (1981), is applied to validate discriminant validity. Every first-order construct's square root AVE must be bigger than the correlation coefficients of the other first-order constructs in the rows and columns to attain discriminant validity (Fornell & Larcker, 1981). Table 4 shows the outcomes. Generally, the first-order constructs' correlation coefficients in the rows and columns were larger than the square root of the AVE in each first-order construct. As a result, discriminant validity for each first-order component was verified.

**Table 4.** Fornell-Larcker criterion.

First-order constructs	Ability-enhancing HRM practices	Motivation-enhancing HRM practices	Opportunity-enhancing HRM practices
Ability-enhancing HRM practices	<i>0.853</i>		
Motivation-enhancing HRM practices	0.893	<i>0.907</i>	
Opportunity-enhancing HRM practices	0.891	0.878	<i>0.854</i>

Note: Italic values are AVE square root.

### Second-order Examination.

To analyze second-order formative constructs, two tests were employed: 1) Variance Inflation Factor (VIF) and 2) formative items' outer weights (Hair et al., 2021). VIF examines the collinearity problems, whereas the formative items' outer weights are to determine whether the constructs were formed by formative items (Hair et al., 2021). Collinearity issues refer to the strong relationships of formative items, which present a problem in accurately understanding the results (Hair et al., 2021). If the formative items' VIF is below the suggested threshold 5, there are no collinearity issues (Hair et al., 2021). The Table 5 results claimed that all VIF values were less than 5, showing collinearity issue does not create problems for items.

Formative items' outer weights were considered via the bootstrapping process (Hair et al., 2021). When the formative items' outer weights are significant at  $p < 0.05$ , the formative items should be kept because they build the constructs (Hair et al., 2021). Table 6 results claimed formative items' outer weights were significant at  $p < 0.05$ , concluding formative items build the first-order formative constructs.

**Table 5.** Formative items' VIF

Second-order constructs	Items	VIF
AMO-enhancing HRM practices	Ability	3.950
	Motivation	2.502
	Opportunity	3.940

**Table 6.** Formative items' outer weights

Second-order constructs	Items	t value
AMO-enhancing HRM practices	Ability	69.93*
	Motivation	45.29*
	Opportunity	69.21*

Note: \*t value > 1.96 = significance < 0.05

## Discussions

This study provides AMO-enhancing HRM practices measurement validation in the context of Malaysian construction firms. This study employed several processes to test Guerci et al.'s (2013) AMO-enhancing HRM practices measurement to serve this purpose. This study first employed a panel of experts to review, refine, and revise the measurement items. This led to revisions on measurement items following recommendations of the panel experts to enhance item clarity. This ascertained that cross-industry AMO-enhancing HRM practices items must be validated before administration to Malaysian construction firms to avoid misinterpretation of the survey questionnaire. Afterward, a pilot study revealed higher reliability coefficients, showing that no items were removed from each dimension.

Further, PLS-SEM analysis reported all three dimensions were highly suited to measure AMO-enhancing HRM practices. Having said that, AMO-enhancing HRM practices measurement is reliable and valid in the Malaysian context. Therefore, it can inspire more AMO-enhancing HRM practices studies in the Malaysian context following the suggestion of Tay, Tan, and Yahya (2017b). Last but not least, the findings imply that AMO-enhancing HRM practices measurement can be replicated in other countries, including Malaysia, India, and Saudi Arabia, besides Western countries such as Italy, Germany, Poland, the United Kingdom, France (where Guerci et al.'s (2013) research was conducted). Subsequently, AMO-enhancing HRM practices measurement is ready to be utilized, especially in a similar cultural context or in comparison studies, as suggested by Al-shawani (2020).

## Theoretical Implications

First, prior validated AMO-enhancing HRM practices measurement is based on scientific and technological manufacturing services (Al-Tit, 2020; Bello-Pintado & Arcés-Galdeano, 2017; Edgar et al., 2021; Li et al., 2021; Malik & Lenka, 2019) firms. Following the recommendation of Bhatti et al. (2020), this study narrows the measurement gap in the study of AMO-enhancing HRM practices in the construction industry context because most existing measures derive from non-construction firms. It should be mentioned that the standards for AMO-enhancing HRM practices vary depending on the type of business industry. Compensation and benefits can focus on healthcare plans, which are vital to construction workers whose living depends on their health. Besides, because accidents and injuries are so frequent in the construction industry, worker safety is the main consideration. The performance appraisal ensures that safety objectives are included and that construction workers adhere to safety objectives. However, the precise and particular measurement for the construction industry is still lacking, entitling additional research to close this research gap.

Second, the study contributes to AMO-enhancing HRM practices literature in a cross-cultural context. The study expands AMO-enhancing HRM practices from the Western context to the non-Western context, i.e., Malaysia, acting as a supporting role in reinforcing AMO-enhancing HRM



practices framework and empirical studies. The study revealed that the findings in Malaysia are generally parallel to findings in Western countries, which is interesting and warrants debate in the literature. The findings are not shocking, given the current patterns in Malaysian managerial practice. Malaysians have made investments in human resources over the past ten years as part of a comprehensive adjustment program to encourage corporate environmental responsibility and innovation (Azmi & Hashim, 2022; Tay et al., 2017b). As part of the adjustment program, which incorporated many Western practices, Malaysian businesses are required to adopt Western HRM practices (Tay et al., 2017b). Although there are clear religious and cultural distinctions, it is interesting to note that HR Managers appear to have reacted to AMO-enhancing HRM practices similarly to managers in Western nations.

Third, this study presents a novel verification of AMO-enhancing HRM practices' multiplicative perspective. In other words, abilities, opportunity, and motivation must all be ready (at least to some extent) to achieve performance (Blumberg & Pringle, 1982). However, if any of them are absent, it is assumed that performance is impossible. Additionally, every one of the three dimensions supports the other two. Thus, weak performance in one dimension will result in weaker firm performance (Delery, 1998). The findings reinforce Hassan et al. (2020) assertion that limited studies verify AMO-enhancing HRM practices' multiplicative perspective. The study provides transparency in conceptualization and operationalization, which sustains strong and satisfying measurement validation studies.

Fourth, this study contributes to methodological value when utilizing a robust research design to validate the multidimensionality of a key variable, i.e., AMO-enhancing HRM practices in construction firms. Construction research uses measurements from more established fields, including psychology, management, and marketing. However, before directly adopting measurements in construction research, measurement adjustments depending on the industry are required. This study is an illustration of validating measurement quality. The researchers hope this study might help scholars in construction research who are interested in advancing this field by providing some clarity.

Sixth, in response to Hauff, Guerci, Dul, and Rhee (2019), this study has advanced the AMO-enhancing HRM practices measurement developed by Guerci et al. (2013) in several significant and unique ways. First, it approves the factor structure of AMO-enhancing HRM practices measurement, which comprises three dimensions using 251 Malaysian construction firm samples, therefore offering extra confirmation that reinforces the findings of Guerci et al. (2013). Second, it frames AMO-enhancing HRM practices with reflective-formative measurement model specification. Prior research did not make apparent how it should be modeled, which creates misinterpretations for future researchers. For example, Nor, Johar, and Khairi (2021) independently empirically tested three dimensions. Meanwhile, Malik and Lenka (2019) analyzed three dimensions as a whole construct. To avoid such a problem, this study determines measurement model specification for Guerci et al.'s (2013) AMO-enhancing HRM practices measurement, which had not been carried out in the initial study. The results show that AMO-enhancing HRM practices are reflective-formative measurement models.

### **Managerial Implications**

This study provides a new perspective and an empirical estimation tool for HR Managers to use when implementing AMO-enhancing HRM practices as suggested by Hassan et al. (2020). HR Managers can use the measurement to measure, monitor, and control AMO-enhancing HRM practices in organizations successfully. Once HR Managers recognize the degree of AMO-enhancing HRM practices in the organizations, they can interfere at a favorable time. Such attempts might assist organizations in preventing fatal situations such as high employee turnover rates, employees performing poorly, and employees ruining the organization's business. Organizations that introduce HRM initiatives can use AMO-enhancing HRM practices measurement to analyze the outcome of their HRM initiatives, improving their usefulness and resilience.

Furthermore, the measurement allows HR Managers to have more faith in concentrating on procedures and methods that increase workers' AMO to contribute when considering about development of employees. The application of the AMO framework can help managers create a holistic approach to HRM practices by encouraging initiatives in each practice category: ability-enhancing, motivation-enhancing, and opportunity-enhancing HRM practices.

**Limitations and Future Research**

This study has several limitations that should be addressed in future studies. First, Guerci et al.'s (2013) AMO-enhancing HRM practices merely validated Grade 7 construction firms in Malaysia. Its application, generalization, and stability are unknown. Future studies are highly recommended to validate the scale using different samples across industries and countries to confirm that the measurement is stable, generalized, and applicable. Second, this study only considered HR Managers' responses, resulting in self-reporting information, and other stakeholders' responses remain unclear. Future research could obtain viewpoints from employees and team leaders to ensure a comprehensive and holistic understanding. Third, the data collection process is conducted at a single point. Thus, it is impossible to pay attention to the fluctuations of AMO-enhancing HRM practices because it is dynamic. Further studies could explore the dynamic nature of AMO-enhancing HRM practices' fluctuations over time using longitudinal studies, allowing data collection at different points. Fourth, the effectiveness of AMO-enhancing HRM practices remains a question. In reality, skilled workers who have received proper training will perform better, and motivated workers will be willing to work hard. Similarly, if the workplace does not offer sufficient opportunities, both drive and ability may lose their relevance. Various factors such as individual faith, empathy, and situations may be considered in future studies to examine how AMO-enhancing HRM practices work.

## Appendix 1

Definition: a set of interrelated functions to increase employees' ability, motivation, and opportunity to achieve an organizational ethical climate.

Measure: 5-point Likert scale. 1-strongly disagree, 2-disagree, 3-neither agree or disagree, 4-agree, 5-strongly agree

Source: Guerci, Radaelli, Siletti, Cirella and Rami Shani (2013)

Please read the following statements, tick (√) in the relevant box, and provide comments.						
Dimensions	Items	Not Relevant	Somewhat Relevant	Quite Relevant	Highly Relevant	Comments
Ability-enhancing HRM practices-Organizations use recruitment and selection training and development to increase employees' ability to achieve an organizational ethical climate (Guerci et al., 2013)	<p>This organization develops ethical brochures and other materials to attract job applicants.</p> <p>This organization attracts and selects employees who share the organization's values.</p> <p>This organization hires employees who exhibit relatively high levels of moral development.</p> <p>This organization has training that focuses on the values of the organization.</p> <p>This organization has ethical leadership programmes and extensive training on the ethical values of the organization.</p> <p>This organization creates cognitive conflict to stimulate independent decisions in ethically ambiguous situations.</p> <p>This organization develops employee skills in engaging and communicating with stakeholders.</p>					
Motivation-enhancing HRM practices- Organizations use contingent rewards and performance management to increase employees' motivation to achieve an organizational ethical climate (Guerci et al., 2013)	<p>This organization develops performance goals that focus not only on outcome-based but also behavioural-based performance evaluation.</p> <p>This organization links bonuses and variable pay to ethical behavior based on social performance objectives.</p> <p>This organization promotes awards for good citizenship (moral behaviour).</p> <p>This organization has sanctioned managers and employees who breach the organization's ethical standards.</p>					
Opportunity enhancing HRM practices- Organizations provide opportunities to increase employees' opportunity to engage in ethical behavior (Guerci et al., 2013)	<p>The job design of this organization encourages employees to take ethics-related decisions.</p> <p>This organization has employee volunteer programmes</p> <p>This organization encourages employees to provide solutions when the organization faces ethical problems.</p> <p>This organization involves employee representatives and unions in the design, application, and review of the ethical infrastructure of the organization.</p> <p>This organization has a career mechanism that is fair, visible to all, and linked to organizational ethical standards.</p> <p>This organization has employee surveys to monitor the ethical climate of the organization.</p> <p>This organization encourages the reporting of unethical behavior and supports whistle-blowing.</p>					

**Appendix 2**

## AMO-enhancing HRM practices original and modified items

<b>Original items</b>	<b>Modified items</b>
Developing ethical brochures and other materials used to attract job applicants	This organization develops ethical brochures and other materials to attract job applicants.
Attracting and selecting employees who share the organization's values	This organization attracts and selects employees who share the organization's values.
Hiring employees who exhibit relatively high levels of moral development	This organization hires employees who exhibit relatively high levels of moral development.
Training interventions that focus on the values of the organization	This organization has training that focuses on the values of the organization
Presence of ethical leadership programmes and extensive training on the ethical values of the organization	This organization has ethical leadership programmes and extensive training on the ethical values of the organization
Creating cognitive conflict to stimulate independent decisions in ethically ambiguous situations	This organization creates cognitive conflict to stimulate independence. Decisions in ethically ambiguous situations
Developing employee skills in engaging and communicating with stakeholders	This organization develops employee skills in engaging and communicating with stakeholders
Developing performance goals that focus on means as well as on ends, using not only outcome-based but also behaviour-based, performance evaluations	This organization develops performance goals that focus not only on outcome-based but also behavioral-based performance evaluation.
Linking bonuses and variable pay to ethical behavior based on social performance objectives	This organization links bonuses and variable pay to ethical behavior based on social performance objectives
10.Promoting awards for good citizenship (moral behaviour)	This organization promotes awards for good citizenship (moral behaviour).
11.Sanctions for managers and employees who breach the organization's ethical standards	This organization has sanctioned managers and employees who breach the organization's ethical standards
12.Job design encourages employees to take ethics-related decisions.	The job design of this organization encourages employees to take ethics-related decisions
13.Presence of employee volunteer programmes	This organization has employee volunteer programmes
14.Encouraging members to provide solutions when the organization faces ethical problems	This organization encourages employees to provide solutions when the organization faces ethical problems.
15.Involving employee representatives and unions in the design, application and review of the ethical infrastructure of the company	This organization involves employee representatives and unions in the design, application, and review of the ethical infrastructure of the organization.
16.Career mechanism is fair, visible to all, and linked to the respect of organizational ethical standards	This organization has a career mechanism that is fair, visible to all, and linked to organizational ethical standards.
17.Employee surveys in place to monitor the ethical climate of the organization.	This organization has employee surveys to monitor the ethical climate of the organization
18.Encouraging the reporting of unethical behaviour and supporting whistle-blowing on ethical issues	This organization encourages the reporting of unethical behavior and supports whistle-blowing.

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