ORGANIZATIONAL PERFORMANCE MEASUREMENT IN HUMAN RESOURCE DEVELOPMENT: ANALYTICAL EVIDENCE OF THE MEDIUM SIZED SMES

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Abstract. Previous studies have consistently highlighted the use of both financial and non-final measurement in evaluating organizational performance in Human Resource Development (HRD). Moreover, evaluating organizational performance in the field of HRD using non-financial measures seems a daunting task. In this context, this study aims to ascertain the reliability and validity test on the adopted combined instruments to assist investigators in the field of professional development, research and education, in using non-financial measures. Based on reviewed literature, organizational performance in HRD framework were selected and built upon using the instrument past research studies. The combined instruments were then given to experts in HRD for validation of the content. Following recommendation of the content validity, 118 items were found valid out of the initial 250 items. These items were then subjected to a reliability test following a pilot study consisting of 50 owners of medium sized manufacturing SMEs. The Cronbach Alpha Test for the constructs ranges between 0.837 and .880 indicating the adequate internal consistency of the instruments. The validity of the questionnaire for the study is thus presumed. Furthermore, a significant correlation between the elements of the HRD perceived organizational performance questionnaire was found through analysis using the Pearson correlation coefficient. Overall, the results offered compelling evidence for the validity and reliability of the tool.

Keywords: *human resource development, skills, organizational performance, small and medium enterprise*

Introduction

Organizational performances have been found to be attached within the threshold of both large and small organizations (Ogunyomi and Bruning, 2016). This suggests that every organization's mission, goal or vision is to see that their organization is performing, to sustain their competitive edge and relevance in their business space. However, concerns about organizational performance were also linked to different areas of. Hence, organizational performance where measured and analyzed based on the field of study. For example, field such as the human resource management or economics considers both financial and non-financial unit with regards to measurement (Ogunyomi and Bruning, 2016; Isaga et al., 2015). However, there are also empirical studies conducted in HRD and organizational performance, which made use of both financial and non-financial measures put-together (Alagaraja et al, 2015; Sung and Choi, 2014). The plausible reason for this mix is that previous studies about the relationship between HRD and organizational performance lacked conceptual and operational definition consensus regarding HRD construct (Sung and Choi, 2014). This means that most previous studies are not consistent about the conceptualization of HRD, thus justifying

the reason for disjointed and incomplete understanding about HRD implication on organizational performance (Sung and Choi, 2014). Based on this prevailing sentiment which is not consistent with the stand points regrading the importance of HRD, a closer examination about the link between HRD and organizational performance becomes inevitable (Bartlett, 2001; Torraco, 1999).Thus, in this study non-financial measures shall be considered in order to bring to limelight comprehensively, the trust about HRD concepts to dissuade biases and inconsistencies about conceptualization of human resource development as advised by Bartlett (2001) and Torraco (1999). Non financial measures however, can be defined as the evaluation of individual or organization interlectual capital on performance index that excludes monetary units Crucke and Decramer (2016). In this study, Non-financial measures as the unit of measurement, is slated to validate that HRD considers the maximization of human potentials to generate human capital experts which aims at attaining a top level of individual or group effectiveness for organizational performance (Swanson and Holton, 2010; McLagan, 1989). This means that the research focuses on the intellectual capital contributions of individuals in terms of quantity output, how effective and efficient, satisfaction or quality features to the success or performance of social enterprises such as the SMEs as compared to the financial contributions. Which in the actual sense negates the principal trust in the concepts underlying Human resources development.

Literature review

In the field of human resource development, organizational performance is based on the notion that organizations are human creations that depend on human capabilities to function well (Swanson and Holton, 2010). This means that in order to become operationally effective, organizations must adopt the corresponding practices of hiring or developing specialized skills (Chell, 2013). According to McLagan (1989), HRD is the combined application of career development, organizational development, and training and development to increase the effectiveness of individuals, groups, and organizations. This suggests that organizational performance in HRD is linked with all development practices, which aimed at achieving a top level of individual, group or organizational effectiveness. Past studies have attributed the unclear and fragmented empirical results of organizational performance in HRD to the lack of consensus by scholars of HRD on conceptual and operational definitions. In this regard, Bartlett (2001) and Torraco (1999) made recommendations for comprehensive investigation about the gains of organizational performance and HRD practices as necessary in the field of HRD. In line with foregoing, it is imperative we differentiate the financial measurement and the non-financial measures in order to give a clearer understanding about the embedded contribution on each domain.

Financial measurement

The degree to which assessments of an individual's or an organization's performance are predicated on financial characteristics is known as financial measurement. According to Kaplan and Norton (2007), financial measurements are related to the impact that an organization's application and execution of its enterprise strategy has on its profit and loss. In this case, the metrics include cash flow, market share, sales growth, operating income, and return on equity (Kaplan and Norton, 2007). "How should we act towards our shareholders in order to be financially successful?" is the

basis on which Bieker (2003) examines the question of financial measures. According to Figge et al. (2002), financial measures are distinguished by signs of a transformational approach that results in increased fiscal success.

Non-financial measurement

Non-financial measure instrument, based on the above previous definition is seen as the instrument that measures the estent at which the evaluation of individual or organization interlectual capital contribute to organizational performance index that excludes monetary units. This suggests that non-financial measure instrument for this study, focuses on the role of HRD towards improving and maximizing human potential in achieving organizational performance. Non-financial measure in HRD is vital in the sense that it shows the contributions of human capital in production activities. In order words, the extent at which developed human competences can enhance performance in organizations. Moreover, Crucke and Decramer (2016) averred that using non-financial measure in social enterprises will support internal decision-making and the demands of accountability toward their stakeholders. Similarly, previous scholar alleged that non-financial measures support internal assessment of business processes such as the employee capabilities, the skill, and individual level of education, stakeholders' satisfaction, work force motivation, improvement activities or development. More so, Bieker (2003) noted also that our attitude towards our customer's satisfactions has a lot to do concerning the achievement of the organizational goals or objectives.

Furthermore, Figge et al. (2002) indicated, that customers satisfaction in terms of time, quality, performance, and services is the trust of competitive advantage which can lead to organizational performance. Thus, based on the reviewed studies about financial and non-financial measurement domain attributes, this study aims to bridge the gap in measurement using organizational performance questionnaire in Human resource development HRD which will be measured from the perspective of non-financial measures (Crucke and Decramer, 2016; Katou, 2008). In this regard, the adopted instrument to measure organizational performance from the perspective of non-financial measurement in this study, were dimensioned in to six constructs, which includes: effectiveness, efficiency, development, satisfaction, innovation and quality. For example, the exact word for the effectiveness item is "My organization meets its objectives. For the Efficiency item is "My organization uses the fewest possible resources to meet its objectives". For Development item is said "My organization is developing in its capacity to meet future opportunities and challenges" To that of satisfaction the item is "My participants; stakeholders, employees are contented" in the same vein Innovation item is "My resources and processes are my source of completive advantage" While for the Quality item is "My products are of high quality". Besides that, the instrument has been used by other researchers and found to be reliable and valid (Katau, 2008). Meanwhile, the instruments used in this study underwent purification (modification) to ensure that the instruments measures what it was meant to measure (Kimberlin and Winterstein, 2008)

Justification for choice of instrument

The choice of instrument is a very vital consideration in carrying any research because instruments play significant role in determining how a particular construct is been measured with reference to the field of study. Five variables are used in this study

to assess the organizational performance of medium-sized manufacturing SMEs in Nigeria's Lagos state. The independent variables (predictor variables) are four instruments: technology usage, knowledge creativity, leadership skills, and management skills. Network competence acts as the mediator. The dependent variable, on the other hand, is organizational performance. Based on their perceived relationship to individual competencies for achieving organizational performance, the researcher selected these combined instruments. Furthermore, annual reports in section 1.0.3, exposes business development services (BDS) which embraces training, counselling and mentoring as well as enterprise-linkages and cooperation among firms. These activities, tries to encourage the need for HRD to improve individuals' potentials that can facilitate competitiveness in the enterprise space by implication translate to business performance. Therefore, it is the duty of HRD practitioners to build the necessary human capital needs through career development, organizational development, and training and development in order to enhance the owner/manager/workforce's abilities to function well in the company. Additionally, the selection of the tools was influenced by the attitudes of SMEs' managers regarding training and development. According to reports from the Federal Office of Statistics, 97% of Nigeria's industries are SMEs with a manageable workforce. Despite this, the economic sector contributes a very small percentage of the country's GDP, which can be attributed to a number of factors, including an unfavourable business environment, inadequate funding, a lack of management expertise, and a lack of awareness of modern technology.

Justification for scale purification

Reliability, validity, and patrimony are the main factors that drive scale purification. It is linked to the removal of several items from a construct in order to enhance the measurement tool characteristics of a scale that has been created or already exists. Furthermore, previous scholars stressed that if items are removed carelessly, they could affect the scales' ability to measure and operationalize constructs. For the scale-purification process to remain coherent, it is imperative that the current guidelines be followed. To improve and strengthen the instrument's ability to measure what is claimed to be measured using statistical software and expert recommendations, a researcher may need to remove a number of items from his measurement tool. Purification of the order words scale is based on both judgmental and statistical standards. In terms of scale purification objective, there has always been a judgmental equivalent to statistical criteria. However, the results of statistical and judgmental criteria will not always be the same because of their different natures. Meanwhile, statistical criteria access quantitative data through standardized technique, whereas, judgmental criteria build on intellectual interpretation of qualitative data, and thus, providing two complementary applications that are mutually supportive but cannot fully replace each other. Building from the above statements, this study adopted and subjected the instruments slated for this study through purification (modification) to ensure validity and reliability of the scales.

Materials and Methods

The test for reliability and validity using Cronbach's Alpha was carried out based on the pilot study conducted in the study areas. Inclusive is the test for normality. This is necessary to know if the proposed adopted instrument for the research study is valid and

reliable. Meanwhile, experts in the field of HRD were given some samples for validation thereafter, a total of fifty questionnaire which reflects all the six variables were sampled to respondents "owner/managers in Ojo, Okokomaiko, Iba, Amuwo-odofin and badagry areas of Lagos state. This is to solicit information about the performances of their medium sized manufacturing SMEs. Thereafter, the questionnaire was collected from respondents and statistical package of SPSS version 23 was used for the analysis. Adopt means, take something legally as your own (Hammarberg, 1990). Firstly, instruments for this research were solicited for from the original developers with permission to make use of it. Upon approval and based on experts' advice, the originality of the proposed instrument was altered in order to make it useful for the current research thus, the instrument is said to be adapted. Adaptation is the process of altering something to suit a new function. Therefore, the second step involved a thorough evaluation of the adopted instruments based on expert advice. To strengthen the instrument's measurement properties, they suggested adding new items and modifying some existing items in various areas (Adapt) of the questionnaire (Hosseini and Kamal, 2012).

Prior researchers reported that the instrument was valid. Nevertheless, content validity was done to make sure the items were appropriate for measuring what they were supposed to measure because of some minor changes made to the items. In general, an instrument's validity is determined by how well it measures the things it is supposed to measure (Kimberlin and Winterstein, 2008). Research instruments are meaningful when they are valid (Drost, 2011). For instance, if a researcher wants to gauge the organizational performance of medium-sized SMEs, it would be valid if the instrument's items accurately gauge the performance of SMEs. Furthermore, "face validity and content validity" are the two categories of validity. The simplest validation procedure to perform is face validity, but it is also the weakest method for validity checking. According to Yahaya et al. (2018), face validity examines the instrument's overall perspective and structure. It evaluates the instruments' readability, viability, style coherence, and layout. This demonstrates that, as opposed to reliability, face validity is a type of usability. Therefore, the questionnaire was sampled to a group of experts who are professors at Lagos State University in order to assess each question's clarity of wording and readability for the intended audience. This was done in order to determine the face validity of the instrument planned for this study.

According to the past studies, content validity is "the extent to which items in an instrument reflect the content universe to which the instrument will be generalized." According to Onwuegbuzie et al. (2009), it is the assessment of how well different individual items reflect the construct under study. As advised, the views of qualified professionals in the HRD field were sought in order to guarantee the content validity of the measurement tools. It stands to reason that this team of professionals is knowledgeable about the principles of human resources development. Additionally, as academic staff representatives and HRD professionals, their input is crucial in assessing the instrument's validity. To this end therefore, the group started with the intended aim of the study and a brief description of the research project. The entire participants were urged to examine the questionnaire wrap up and talk about their idea concerning the clarity of each item, ranging from the clarity of the questions, the accuracy, the flow as well as the wording as related to the field of study or any redundancy within the questionnaire. In all, the experts provided useful feedback which was used to modify the instrument in other to maintain a top-level content validity. However, this group of

experts identified few redundant items within the questionnaire. Among the redundant items was some selected vocabularies which were not fit in to HRD field. For example, items which were used in the field of economics, marketing and business administration were changed to reflect the field of HRD. Again, they felt also that the words "total amount of sales" does not reflect non-financial measures, instead alternatives such as training and development and organizational performance, satisfaction, innovation, effectiveness, efficiency and quality were chosen to reflect, the field of HRD. There are also cases of similar questions which were noticed in a different variable scale such were removed to avoid complicity in items of different variable in one study. Meanwhile, this process about validation/content validity is synonymous with judgmental criteria, thus;

Evaluation by expert judges or panels is followed by literature reviews as part of the judgmental criteria or approach to establish content validity. In order to facilitate validation, the judgmental approach to content validity procedure necessitates that researcher be present with experts. Following this, each construct item in the questionnaire in order to get clarification on each one. After that, they will make adjustments based on their assessment of the constructs in relation to the study area and field. Therefore, it was suggested that items deemed unnecessary be removed. Items were removed at the fourth stage in accordance with the advice of experts assertion that scales with an excessive number of items may cause issues with respondent fatigue or response biases. Sections A through H, which indicate the instrument subdivisions for readability and respondent convenience, are then repackaged with the remaining items, dimensions, and five Linkert scales of (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, and (5) strongly agree. At the fifth stage the questionnaire was then given to respondents who are owner/managers of medium sized SMEs to indicate by answering questions related to performances of their manufacturing medium sized SMEs on a five-point Likert scale ranging from 1 of strongly disagree to 5 of strongly agree. The questionnaire was thereafter collected, checks were carried out, through selection of filled questionnaires, the unattended or wrongly filled responses, were kept on one side, while the correctly filled are selected and kept on the side slated for exploratory data analysis.

Sixth stage, the perceived correctly filled questionnaire were carefully imputed in SPSS software version 23. Exploratory data analysis (EDA) was carried out to screen the data to check for missing value and outliers. Outliers were checked using plot box, the analysis indicated absence of outliers. Check for normality of the data was also conducted using skewness and kurtosis. The result as shown in table indicated that the data were normally distributed as the value of the skewness and kurtosis fall within the recommended values of -2 to +2. Cronbach alpha test was then conducted on the screened data to check for the reliability of the instruments. The test for normality was conducted using SPSS version 23 with 50 respondent's answers to questions. Five outliers were identified and removed through data reduction technique. Thus, 45 items were thereafter used for the test of normality. The Table 1 shows the result. Based on the rule of thumb of -2 to +2 for skewness and kurtosis the above test for normality shows that the data are normally distributed (George and Mallery, 2010).

Table 1. *Test for normality.*

Variables	No of items	Normality test	Statistic	Std. Error
Mean org. performance	45	Skewness	-.932	.354
		Kurtosis	.079	.695

Mean network competence	45	Skewness	-1.482	354
		Kurtosis	1.353	695
Mean management skill	45	Skewness	-1.352	.354
		Kurtosis	.818	.698
Mean leadership skill	45	Skewness	-1.305	.354
		Kurtosis	.904	.698
Mean technology usage	45	Skewness	-.916	.354
		Kurtosis	-.209	.695
Mean knowledge creative	45	Skewness	-1.171	.354
		Kurtosis	.592	695

Fifty questionnaires were used in a pilot test that was carried out before this investigation. Surveys were distributed to respondents who are owners or managers of manufacturing businesses in the Lagos state neighbourhoods of Ojo, Okokomaiko, Iba, Amuwo-Odofin, and Badagry in order to gather data regarding the operations of their businesses. The purpose of this was to determine the validity and reliability of the instruments, which impliedly underwent the internal consistency test using Cronbach's Alpha. This is to determine whether the suggested tool for the aforementioned research study is trustworthy and legitimate. A statistical package of SPSS version 23 was used after the reliability test each of the variables. It includes Organizational performance, Knowledge creativity, Network competence, Leadership skill, Technology usage. All were found to meet .832 and above Cronbach's Alpha for reliability thus, showing that all the instruments are reliable and valid for the study. Nevertheless, reliability using Cronbach Alpha can be further explained. A measuring instrument is said to be reliable if it provides consistent results of what it is said to measure (Kothari, 2004). Thus, it is important to examine the reliability of each scale used in the study, in order to know the extent at which the data are consistent. To this extent, therefore the internal consistency for each of the scales used in this study were evaluated using Cronbach's alpha. This was chosen owing to its versatility about the use of continuous variables. Nevertheless, previous studies explained that, "Cronbach's alpha estimates internal consistency reliability by determining how all items, on a test relate to all other tests items and to the total test". The higher the alpha value the more reliable the survey instrument would be. The table below depicts the summary of the reliability for the pilot study.

Results and Discussion

The main tool of data collection for this study is the questionnaires. The steps are from section A to section H as in the questionnaire. The instrument for measurement was made up of eight sections. Section A and section B includes the demographic characteristics and general information about the business. Sections C, contains the dependent variable organizational performance which was explained, in six dimensions of effectiveness, efficiency, development, satisfaction, innovation and quality. Sections D includes first, the effect variable, network competence while E to H are the independent variables of management skill (E), leadership skill (F), Technology Usage (G), and Knowledge creativity (H). The following are the measurement tools for the variables, their validity, and their reliability. SMEs' organizational performance is the dependent variable, followed by network competence as the mediating variable and human capital predictors, which comprise knowledge creativity, technology use, management ability, and leadership skill (*Table 2*).

***Table 2**. Reliability study.*

Constructs	Items	Source/author	FI	CAR

Network competence	16	Torkkeli et al. (2016)	15	.880
Technology usage	36	Hosseini and Kamal (2012)	21	.871
Knowledge creativity	20	Hosseini and Kamal (2012)	16	.832
Management skill	94	-	17	.877
Leadership skill	30	Mumford et al. (2007)	24	.868
Organizational performance	30	Katou (2008)	25	.837

Note: FI=Final Item based on expert recommend; CAR=Cronbach Alpha/Reliability.

Instrument for measuring organizational performance of SMEs

Instrument was developed by Katou (2008) it is a five Likert type scale consisting of six dimensions that measures organizational performance; this includes efficiency, effectiveness, development, satisfaction, innovation and quality. However, due to the fact that one item on each dimension seems small to carry out confirmatory factor analysis in SEM, at list four items on each dimension as suggested, coupled with advice from the professionals in the field of HRD. Additional 24 items were extracted and added alongside the existing 6 dimensions, using related literature reviews as recommended. Following content validity by experts, 5 items was removed, as three items seem to repeat almost the same thing, with other instrument in the study, two items, were double barrel questions hence, were re-amended. However, two questions, which appears redundant, were also eliminated since they are not consistence with medium sized SMEs. Thus, 25 items, were considered appropriate to measure organizational performance of SMEs. Among 25 items Section C (1-5) are related to owner/managers to effectively meet its planned objectives with a sample item (Effective strategies are aligned to the mission and goal statement of my enterprise. Section C (6-9) this are related to owner/managers effort to efficiently maximize the fewest resources to achieve its goal with a sample item (My enterprise utilized the fewest resources to meet its objectives. Section C (10-13) are related to general norms about the effect of training and development on improving individuals' capacity to perform well with a sample item (My employee skills are developed for current and future challenges and opportunities. Section C (13-16) this is related to the extent at which all stakeholders of the firm are satisfied with a sample item (My organization pays attention to stake holder's needs. Section C (17-19) are related to the level at which the organization lay much emphasis, on new product creation or development with a sample item (My organization lay much emphasis on the development of new products and services. Section C (20-25) these are related to the degree at which the owner/manager SMEs is able to deliver quality-manufactured products with a sample item (My organization engage employee to deliver products without error. Respondent perception was measured using a five-point Likert scale (1=being strongly disagree, 2=disagree, 3=undecideds, 4=agree, and 5=strongly agree). Although there are alternative tools for assessing organizational performance, this study decided to employ Content vs. Process since it addressed both organizational and individual issues. Katou (2008). Additionally, earlier studies like Katou (2008) proved the validity and reliability of the tool. Permission to use the instrument in the study was given by the instrument's creator. After gathering information from the owner/manager, the data was analysed using SPSS version 23 to determine the Cronbach alpha. With 25 items, the organizational performance scale coefficient, $\propto$, was 0.837.

Network Competence Questionnaire (NCQ)

According to Torkkeli et al. (2016), Torkkeli et al. (2012), as well as Ritter et al. (2002), Network Competence: The Net Comp scale (NCS). The network competency components were measured using a seven-point Likert scale based on prior research, and a confirmatory factor analysis model was created with some items eliminated in accordance with Anderson and Gerbing (1988) recommendation, resulting in a final construct of 15 items. However, the seven point Linkert scale was changed to a five-point Linkert scale in order to maintain consistency and coherency with other instrument in the study. Following content and face validity the questionnaire was carefully examined, 15 items, were found appropriate, to measure network competence for this study. A sample item (I started meetings and conversations with those in our firm involved in connections with our partners) is one of the 15 items in Section D (26-30), which relates to general network competency concern about collaboration including other partners. Using a sample item, Section D (31-35) evaluates how much the partnerships have benefited their companies' goals. I kept track of how much our ties with our partners had benefited us. A sample item (I exchange confidential information with our partners) is connected to the sharing of important and private information between integrating partners in Section D (36-40). Respondent perception was measured using a five-point Likert scale (1 being strongly disagree, 2 disagree, 3 undecided, 4 agree, and 5 strongly agree). Despite the fact that there are other instruments for measuring network competence, this research chose to use network competence questionnaire, due to the fact that the instrument covers two dimensions of internal and external network competence, that is within and outside the organizational concerns. The developer of the instrument, granted permission, to use the instrument in the research. Meanwhile, Spss version 23 was used for the data analysis to ascertain the Cronbach alpha after collation from the owner/manager. The scale coefficient, for the network competence measure was 0.880 with 15 items.

Management Skill Assessment Instrument (MSAI)

Management Skills Assessment Instrument (MSAI) was developed; and it is a five-point Likert scale instrument .The reliability coefficient, Cronbach's Alpha, rests between the values .794 and .840. 17 items, were found appropriate, to measure management skill for this study. However, considerations were also given to statement that scales with too many items can create problems with respondent fatigue or response bias. Among the 17 items Section E (41-46) are related to the general behaviour of a manager believe that regular coaching of subordinates improves their performance. Section E (47-52) are related to managers effort in building a strong team in the organization that can remain committed to organizational success with a sample item (I made certain that others had a clear picture of how their job fits with others in the organization. Section E (53-57) are related to the managers effort in instilling sense competitiveness which will encourage workers perform at high levels with a sample item (I foster a sense of competitiveness that helps members of my work group to perform at higher levels than members of other units. Respondent perception was measured using a five-point Likert scale (1 being strongly disagree, 2 disagree, 3 undecided, 4 agree, and 5 strongly agree). The MSAI was chosen for this study because it addressed both organizational and individual issues. Additionally, earlier studies like demonstrated the validity and reliability of the instrument. Before using the instrument, the developer's consent was obtained. After gathering information from the owner/manager, the data was analysed using SPSS version 23 to determine the

Cronbach alpha. With 17 items, the management skill reliability measure's scale coefficient ∝ was 0.877.

Leadership Assessment Survey Tool (LAST) 2016

Leadership Assessment Survey tool (LAST) 2016 version-01202017 was developed by Troy V, Mumford. This instrument is a five Likert scale with a total of 30 items. However, only 27 items were factored into nine dimensions, consisting of 3 items on each dimension. Meanwhile, 3 items which were not among the existing dimension were struck out to maintain coherency and consistency. Meanwhile, another three items were also struck out for the reason that the items are measuring network, which already exist elsewhere in the study. Thus, the remaining 8 dimensions of three items each, were later merged to become four dimensions with six items on each dimension with sub heading interpersonal skill, cognitive skill, strategic skill and business skill. Since the past studies noted that items need not be fewer than four in order to perform confirmatory factor analysis (CFA) using SEM, this was done to accommodate CFA. As a result, the 24 questions on the instrument were deemed acceptable and valid for measuring leadership skills in this study. The 24 items in Section F (58-63) are related to the leadership skill of the owner/manager to think critically and communicate effectively to put information across in a manner that it would achieve, what it is set to achieve with a sample item (Critical thinking supports a better approach to work related issues in my enterprise). Section F (64-69) are related to the leadership skill interpersonal skill to influence others to achieve organizational set objectives with a sample item (problem solving skills is a source of influence that has guided employees in my SMEs to perform well). Section F (70-75) are related to the strategic acumen of the leader to visualize and scan the business environment and plan for the future sustainability of his enterprise with a sample item (I make long term planning that determines where my organization is going and how it will get there).

Section F (76-81) are related to owner/managers' business skill to make good business decision that can generate much profit with a sample it (I make operational decision in terms of acquisition of raw materials and equipment in my enterprise. A five-point Likert scale was used to measure the respondent's perception (1=Strongly Disagree; 2=Disagree; 3=Undecided; 4=Agree; 5=Strongly Agree). Despite the fact that there are other instruments for measuring leadership skill, this research chose to use of LAST due to the fact that the instrument covered at both individual and organizational concerns (Mumford et al., 2007). The validator of the instrument, granted permission, to use the instrument in the research. Meanwhile, Spss version 23 was used for the data analysis to ascertain the Cronbach alpha after collation from the owner/manager. The scale coefficient, for leadership skill reliability measure was 0.868 with 24 items.

Technology usage and knowledge creativity instrument

The first to establish the Perceived Technology and Knowledge Questionnaire (PTKQ) and the Technological Pedagogical Content Knowledge Scale (TPCKS); whereby are the seven TPCK subscales, the internal consistency reliability (coefficient of alpha) varied between.865 (TCK) and.906 (TPCK). This range is regarded as "acceptable" to "excellent." According to a prior study, the items were originally 53 and were extended to 59 during validation (Hosseini and Kamal, 2012). The scale has seven factors, which was determined found as result of the exploratory and confirmatory

factor analyses. These seven factors have to do with different areas regarding technology and Knowledge in the sub scales (Hosseini and Kamal, 2012). Thus, TPCKS was considered appropriate for the current study in measuring technology usage and knowledge creativity.

Technology usage instrument

According to Hosseini and Kamal (2012), eleven technological knowledge items had a Cronbach's alpha of .910. With ten items, the Cronbach's alpha for Technological Pedagogical Knowledge was .909. With five items, the Cronbach's alpha for technological content knowledge was .865. With seven items, the Cronbach's alpha for Technological Pedagogical Knowledge was .906. In order to make the questionnaire suitable for measuring technology usage circumstances, some of the words were modified, such as "teaching technology knowledge" to "technology usage," because the instrument originated in the field of educational teaching about knowledge and technology. To measure the construct technology usage: the subscales of TPCKS, which includes 11 items, 10 items, 5 items and 7 items in Hosseini and Kamal (2012), were merged into 33 items, 21 items were appropriate, valid to measure technology usage for this study. The general understanding of technology usage is covered in section G (82-90) of the 21 items, along with a sample item (I can use technology in formulating strategies for solving production challenges). Using technology to improve production activities and manage business operations with a sample item is covered in Section G (91-98). I can select technologies that will improve my manufacturing methods. I can assess and choose new information resources and technical developments according to their suitability for particular tasks in my organization. Section G (99-102) deals with the use of technology to assess, access information, and facilitate collaboration with an example item. Respondent perception was measured using a five-point Likert scale (1=being strongly disagree, 2=disagree, 3=undecided, 4=agree, and 5=strongly agree). Despite the fact that there are other instruments for measuring technology usage, this research chose to use technological pedagogical content knowledge scale (TPCKS) due to the fact that the instrument covered at both individual and organizational concerns (Hosseini and Kamal, 2012). The validator of the instrument, granted permission, to use the instrument in the research. Meanwhile, Spss version 23 was used for the data analysis to ascertain the Cronbach alpha after collation from the owner/manager. The scale coefficient, for technology usage reliability measure was 0.871 with 21 items.

Knowledge creativity instrument

The PTKQ questionnaire's content knowledge section had a Cronbach value of.886, while the pedagogical knowledge component had a Cronbach's alpha value of.850. The pedagogical content knowledge portion had a Cronbach's alpha value of.895, which is considered to be a good internal consistency test. According to Hosseini and Kamal (2012), the Questionnaire PTKQ is a five-point Likert scale. Some words in the questionnaire were changed to better suit measuring knowledge creativity situations because the instrument originated in the field of educational teaching about knowledge and technology. For example, the word educational knowledge was changed to teaching to knowledge creativity. Thus, to measure the construct knowledge creativity, the subscales of PTKQ with seven items, six items and seven items (Hosseini and Kamal 2012) were merged to 20 items; in order to fit the construct of knowledge creativity, 16

items were appropriate, valid to measure knowledge creativity for this study. Among the 16 items, section H (103-107) are related to the General knowledge about knowledge for creativity with a sample item (I believe that to become successful in business, you must spend some time every day developing new ideas). Section H (107-113) are related to using knowledge to create competitive advantage by creating new things with a sample item (Knowledge creativity is the driving force for competition in my enterprise). Section H (114-118) are related to creating the right the right environment and developing talents through training, with a sample item (I can identify the right talent training and development through interaction with my employees). A five-point Likert scale was used to measure the respondent's perception (1=Strongly Disagree; 2=Disagree; 3=Undecided; 4=Agree; 5=Strongly Agree). Despite the fact that there are other instruments for measuring technology usage, this research opts to use PTKQ due to the fact that the instrument covered at both individual and organizational concerns (Hosseini and Kamal, 2012). The validator of the instrument, granted permission, to use the instrument in the research. Meanwhile, Spss version 23 was used for the data analysis to ascertain the Cronbach alpha after collation from the owner/manager. The scale coefficient, for knowledge creativity reliability measure was 0.832 with 16 items. Based on the face and content validity of the perceived HRD and organizational performance instrument, which has been validated by HRD specialists. It is claimed that the instrument is legitimate. In the meantime, the initial and subsequent evaluations of the Cronbach's alpha and the test for normalcy satisfied the necessary standards, demonstrating the validity and reliability of the instrument for the subject matter.

Conclusion

The results of the research show that the Perceived Human Resource Development (HRD) and Organizational Performance Questionnaire, which included six main measurement items, shows great validity and reliability in measuring the constructs it aimed to assess. This detailed tool successfully encompasses the key factors impacting organizational performance from a HRD viewpoint. The questionnaire incorporates various tools designed to assess the independent variables: managerial abilities, leadership capabilities, expertise, innovation, and technology usage. These factors are essential aspects of HRD, showcasing the skills and abilities organizations strive to cultivate in their employees to improve performance results. Along with these independent variables, the survey also contains questions to evaluate the dependent variable, which is organizational performance. This enables a direct assessment of how HRD initiatives result in concrete results within the organization. Additionally, the survey includes metrics for the mediating variable, network competence, which is essential for connecting HRD efforts to organizational performance. Network competency denotes the organization's capacity to develop, oversee, and utilize relationships and networks, internally and externally; to facilitate knowledge exchange, foster innovation, and drive strategic expansion. The comprehensive design of the questionnaire guarantees a complete evaluation of the interrelated influences among HRD practices, network capability, and organizational performance. The established reliability and validity of the tool affirm that it is an appropriate and strong instrument for future studies and practical use in organizational growth and performance assessment.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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