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The mediating role of employee competencies
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Human resource development (HRD) practices and banking industry effectiveness

The mediating role of employee competencies

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Abstract
Purpose – The purpose of this paper is to examine the mediating role of employee competencies in the relationship between human resource development (HRD) practices and organizational effectiveness.

Design/methodology/approach – An integrated research model was developed by combining principal factors from existing literature. Data were collected through questionnaire from 550 employees of the selected banks. The validity of the model and hypotheses was tested using structural equation modeling. The reliability and validity of the dimensions are established through confirmatory factor analysis.

Findings – The results indicate that some HRD practices impact organizational effectiveness through their influence on employee competencies. The study further revealed that employee competencies mediate the relationship between HRD practices and organizational effectiveness.

Research limitations/implications – The research was undertaken in the banking industry and the analysis based on cross-sectional data which cannot be generalized across a broader range of sectors.

Practical implications – The findings of the study will help policymakers and management of banks in espousing suitable and well-articulated HRD practices to harness the competencies of employees and inordinately enhance organizational effectiveness.

Originality/value – This study extends the literature by empirically adducing evidence that employee competencies mediated the relationship between HRD practices and organizational effectiveness of the banking industry in Ghana.

Keywords SEM, Banking industry, Financial institutions, Organizational effectiveness, HRD practices, Employee competencies

Paper type Research paper

Introduction
Human resource development (HRD) thrives as an important area of research practice. HRD intent towards advancing a diversity of competence of workers and promoting a vigorous work philosophy in the organization to harness the competencies of employees and inordinately enhances organizational effectiveness (Rao, 1987). Such resources take on special relevance when dealing with service industries, especially the banking industry, where there is much more extensive direct contact between employees and customers at the service interface (Delery and Doty, 1996). Creating competitive advantage through people requires careful attention to the practices that best leverage these assets. HRD practices are programs which are designed to be strategically oriented to organizational process for managing the development of human resources to contribute to the overall success of the organization (Werner and DeSimone, 2006).
Hinson et al. (2006) postulate that the banking industry as part of the global service industry plays an important role in the financial system of a country. Similarly, Parameswaran and Natraj (2001) deliberate that the health of a country’s economy is closely related to the soundness of its banking system. McClelland (1973) posited that competence is a characteristic trait of a person that is related to superior performance and a demonstration of particular talents in practice and application of knowledge required to perform a job. Georgopoulus and Tannenbaum (1957) opined that organizational effectiveness is the extent to which an organization as a social system, given certain resources and means, fulfils its objectives without incapacitating its means and resources and without placing undue strain upon its members. Majority of studies on HRD practices in the banking industry mainly and not (many) focuses on developed economies such as the USA (Keltner, 1995), the UK (Storey et al., 1997), Germany (Paul and Mitlacher, 2008), Australia (Blount et al., 2005) and Spain (Peña and Villasalero, 2010). However, with some exceptions (Darney-Baah, 2014; Gberevbie, 2010; Hinson et al., 2006), scant research study exists on HRD practices in the West Africa banking industry. Researchers have examined the influence of HR practices on organizational outcomes (Becker and Huselid, 1998; Huselid, 1995; Ichniowski et al., 1997) which might be confounded by many contextual factors such as strategy (Youndt et al., 1996) and industry (Datta et al., 2005). Despite this progress, one of the critical substantive issues that have not received as much attention is an understanding of the mediating mechanisms or processes through which HR practices impact firm performance (Batt, 2002). More recently, studies have started examining the mediating mechanisms through which a bundle of HR practices affect organizational performance (Gong et al., 2009; Sun et al., 2007; Takeuchi et al., 2007). Recent research suggests examining the mediating role of proximal employee outcomes (Butts et al., 2009; Liao et al., 2009; Takeuchi et al., 2009). Consequently, this study attempted to examine the mediating role of employee competencies in the relationship between HRD practices and organizational effectiveness of the banking industry in Ghana.

Literature review and hypothesis development

Human resource development practices

HRD is generally defined as a combination of structured and unstructured learning and performance based activities which develop individual and organizational competency, capability and capacity to cope with and successfully manage change (Simonds and Pederson, 2006). HRD programs are designed and implemented to improve employee capabilities so that the employees perform effectively and meet performance expectations (Indradevi, 2010; Swanson and Holton, 2009). Along the same lines, Clardy (2008) postulates that organizations use HRD practices as an important strategic mechanism to stimulate positive behavior in individuals and impact their knowledge, skills and attitudes which can increase productivity and performance. Yuvaraj and Mulugeta (2013) contend that HRD interventions continuously improve employees’ capability and performance through the existing practices of training, career development, performance appraisal and management and organizational development component of HRD. Similarly, Smith and Walz (1984) categorized HRD practices into training and development, organizational development, employee assistance programs, career development, performance appraisal, compensation, employee relation, recruitment and employee outplacement. Therefore, for the purpose of this study, the following HRD practices are examined: training and development, employee involvement and career development.
Employee competencies
There is such confusion and debate concerning the concept of “competence” that it is impossible to identify or impute a coherent theory or to arrive at a definition capable of accommodating all the different ways that the term is used. Norris (1991) argue that as tacit understandings of the word competence have been overtaken by the need to define precisely and to operationalize concepts, the practical has become shrouded in theoretical confusion and the apparently simple has become profoundly complicated. Along the same lines, Boon and van der Klink (2002) postulate that competence is a ‘fuzzy concept, nonetheless, it is a useful term bridging the gap between education and job requirements. Hartle (1995) and Mansfield (2004) assert that competence is considered as an attribute of the employee (personal competence), i.e. as a kind of human capital or a human resource that can be translated into a certain level of performance. Similarly, Boam and Sparrow (1992) and Smith (1993) opined that competence is defined in terms of the requirements of the tasks that constitute a certain job (occupational competence). Ellström (1997) defined personal competence as the capacity of an individual to be successful according to certain formal or informal criteria, set by oneself or by somebody else, handle certain situations or complete a certain task or job. He further indicated that this capacity may be defined in terms of perceptual motor skills, cognitive factors, personality traits and social skills. Occupational competence is the relation between the capacity of an individual and the requirements of a certain situation or task, knowledge and intellectual skills, non-cognitive factors and a capacity of a complex function (Ellström, 1997). Hellriegel and Slocum (2011) identified self-competency, team competency, change competency, communication competency, ethical competency, diversity competency and cross-country competency as the seven key competencies that affects the behaviour of individual, teams and effectiveness of an organization. Based on the literature, the following competencies were examined: self-competency, team competency, change competency, communication competency and ethical competency.

Organizational effectiveness
Organizational effectiveness is perhaps the most critical dependent variable in all organizational analyses, and the notion of effectiveness is central to organizational theories (Cameron, 1980; Goodman and Pinning’s, 1980). Despite this significance, the construct has eluded a clear definition. Roy and Sanjiv (2005) defined organizational effectiveness as the net satisfaction of all constituents in the process of gathering and transferring inputs into outputs in an efficient manner. Researchers have outlined five important approaches in measuring organizational effectiveness: goal attainment approach, system resource approach, strategic constituency approach and competing values approach (Pfeffer, 1977; Quinn and Rohrbaugh, 1981; Trieschmann et al., 2000; Wolfe and Putler, 2002). Price (1968) posited that the goals model defines effectiveness as the degree to which an organization has achieved its goals. Along the same lines, Weese (1997) opined that the goal attainment approach evaluates the effectiveness of an organization in terms of its success in realizing its goals. The system resource model is the ability of the organization in either absolute or relative terms to exploit its environment in the acquisition of scarce and valued resources (Yuchtman and Seashore, 1967). Connolly et al. (1980) contend that the strategic constituency approach hinges on where several different effectiveness statements are made about the focal organization, reflecting the criterion sets of different individuals and groups referred to as constituencies. They further accentuated that human resource leads to the strategic constituency framework where the identification of the key stakeholder’s view of effectiveness is considered paramount. Quinn and Rohrbaugh (1981) emphasized that the
competing value approach is the most rigorous and influential multidimensional approach which builds the organizational effectiveness framework. They further deliberate that the competing values approach and its effectiveness criteria emerged from the judgments of organizational effectiveness in profit organizations. Based on the literature, the following organizational effectiveness measures were examined: goal attainment approach, system resource approach, strategic constituency approach and competing values approach.

**Human resource development contributions to organizational effectiveness**

Several studies have revealed that equipping employees with additional or new knowledge and skills is associated with positive organizational outcomes (Schaufeli and Salanova, 2007; Sung and Choi, 2014; Tseng and McLean, 2008). Alagaraja et al. (2015) put forward five important approaches in examining the HRD, organizational effectiveness and performance nexus: best-fit model, best-fit approach, best-practice model, combination of best-fit approach and best-practice model, stakeholders’ perception based. Similarly, several other authors have conceptualized and empirically established positive relationship between single or interrelated sets of HRD practices and organizational effectiveness (Colbert et al., 2014; Rahman et al., 2013; Riordan et al., 2005). Swanson and Holton (2009) emphasized that HRD practices improve employee competence and enhance organizational effectiveness.

**Human resource development practices and employee competencies**

Shih et al. (2006) postulates that HRD practices help improve the skills and abilities of employees to generate returns through increased productivity and business performance. Sung and Choi (2014) suggested that organizations should design and implement HRD practices to enable people to work effectively and attain performance expectations through improved individual competencies. Similarly, Kehoe and Wright (2013) contend that HRD practices was the basic factor for employees to acquire competencies that in turn significantly improve organizational functioning.

**Training and development and employee competencies**

The significance of training and development in the enhancement of employee competencies and organizational development has been espoused by several authors (Chang et al., 2011; Swanson, 2001; Youndt and Snell, 2004). Salas and Cannon-Bowers (2001) contend that training and development enhances employee’s skills and competences which in turn increase their productivity and performance. This view appears to be supported by Zumrah et al. (2013) who asserted that employees who participated in training apply the new learned skills, knowledge and attitude in their everyday work and demonstrate better abilities and competencies in performing their job. Similarly, several other authors contend that training opportunities for employees enhance their sense of task-related efficacy (Bartlett, 2001; Clardy, 2008; Gubbins et al., 2006). They further indicated that organizational practices in support of employee training send a clear signal of managerial interest in employee development, which urges employees to improve their knowledge, skills and abilities. Based on the above discussion, the following hypothesis is proposed:

\[ H1. \text{ Training and development has a significant influence on employee competencies.} \]

**Employee involvement and employee competencies**

Employee involvement is the level of participation by members in an organization’s decision-making process and the sense of responsibility and commitment thereby
engendered (Denison, 2007). Rossler and Koelling (1993) contend that employee involvement builds individual competence, control and obligation leading to a concerted foresight, values and aspirations. Along the same lines, Denison and Mishra (1995) emphasized that employee involvement is an important dimension of corporate culture that influences its effectiveness. Similarly, Denison (1990) deliberates that receiving input from organization members increases the quality of the decisions and improves their implementation. Based on the above contributions, the following hypothesis is proposed:

\[ H2 \] Employee involvement has a significant influence on employee competencies.

**Career development and employee competencies**

Career development is the total constellation of psychological, sociological, educational, physical, economic and chance factors that combine to shape the career of any given individual over the life span (McDaniels and Gysbers, 1992). McGraw (2014) contends that the effective implementation of individual career management processes significantly enhances employee competency and improve individual performance. This view appears to be supported by Kaye (2005) who postulated that a well-designed career development system enables organizations to tap their wealth of in house talent for staffing and promotion by matching the skills, experience and aspirations of individuals to the needs of the organizations. Along the same lines, Granrose and Portwood (1987) asserted that the most common rationale for organizational involvement in individual career planning is to reduces employees’ uncertainty, help them to plan and thus yield positive outcomes for individuals. Consequently, the reviewed literature reflects that career development efforts enhance employee competencies leading the researcher to purport:

\[ H3 \] Career development has a significant influence on employee competencies.

**The mediating role of employee competencies**

Although some investigative studies have shown direct links between certain HRD practices and organizational effectiveness (Indradevi, 2010; Riordan et al., 2005; Swanson and Holton, 2009), one assumption underlying research on strategic HRD is that rather than exerting a direct effect, these practices could affect organizational effectiveness through their influence on certain organizational variables. Within this line of research, Nilsson and Ellstrom (2012) emphasize that developing HRD strategies in an organization is an opportunity for employees to enrich their competencies which contributes in aggregate to firm performance. Several authors noted that employees’ task-relevant capabilities or KSAs are a critical condition for efficient and effective operation of various organizational functions (Gubbins et al., 2006; Tharenou, 1997). Similarly, Kehoe and Wright (2013) contend the enhanced levels and quality of in-role and extra-role task efforts driven by increased commitment and competence of employees contribute to effective organizational functioning. This study draws from the literature on strategic HRD and resource-based value of the firm. According to the RBV, HRD practices contribute to the attainment of sustainable competitive advantage through the development of firm-specific assets (Clardy, 2008; Lado and Wilson, 1994; Macky and Boxall, 2007). In particular, HRD practices can contribute to firm performance by leveraging human capital (Aragon-Sanchez et al., 2003; Gubbins et al., 2006; Shih et al., 2006). Furthermore, Jiang et al. (2012) suggested that HR practices constitute an investment in firm-specific human capital and when organizations have higher quality
human capital they are more capable of enhancing organizational effectiveness. Taking these approaches into account, the following hypothesis is proposed:

\[ H4 \text{. HRD practices influences organizational effectiveness through the mediating role of employee competencies.} \]

The structural equation model is depicted in Figure 1.

### Methods

**Research setting and data structure**

To test the proposed model, an empirical study was conducted in two commercial banks in Ghana. The banking industry as part of the global service industry plays an important role in the financial system of a country (Hinson et al., 2006). Information on the banks was taken from the Bank of Ghana (2018) Licensed Banks Directory. A cross-sectional study design was applied using a structured questionnaire developed for the collection of primary data. Purposive sampling was applied in the selection of banks. Silverman (2004) opined that purposive sampling allows a researcher to choose a study based on specific features and process which justified on the study to be made. Employees were chosen as key informants for the study. Schein (2004) emphasis the importance of getting employee of an organization

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![Figure 1. Structural equation model](image-url)
involved in a research process when he postulated that employees are the actual people who implement the changes established in an organization. The Yamane (1967) sample size technique was applied in determining the sample size. A total of 800 respondents were identified and reached in the selected banks and 550 respondents reverted back with full required information corresponding to a response rate of 69 per cent. From Table I, the majority of respondents (52.7 per cent) were males. More than half (53.6 per cent) of respondents were in the age group 26-35 years. The majority of respondents (46.1 per cent) had 1-5 years working experience in the bank.

**Measures**

The variables used in this study were assessed using multiple items from different studies in the extant literature. All the items were measured using a five-point Likert-type scale, where the respondents had to indicate their level of conformity with the different statements (1: strongly disagree to 5: strongly agree).

Training and development: Santos and Stuart (2003) and Singh (2004) effectiveness of training scale was adopted in measuring training and development. The scale which consists of ten items was modified according to the current study and generated five items with a reliability of 0.80.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency(s)</th>
<th>% of totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>290</td>
<td>52.7</td>
</tr>
<tr>
<td>Female</td>
<td>260</td>
<td>47.3</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>130</td>
<td>23.6</td>
</tr>
<tr>
<td>26-35</td>
<td>295</td>
<td>53.6</td>
</tr>
<tr>
<td>36-45</td>
<td>70</td>
<td>12.8</td>
</tr>
<tr>
<td>46-55</td>
<td>55</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td>227</td>
<td>41.3</td>
</tr>
<tr>
<td>Credit</td>
<td>95</td>
<td>17.3</td>
</tr>
<tr>
<td>Marketing</td>
<td>56</td>
<td>10.2</td>
</tr>
<tr>
<td>Risk and compliance</td>
<td>86</td>
<td>15.6</td>
</tr>
<tr>
<td>Human resource</td>
<td>49</td>
<td>8.9</td>
</tr>
<tr>
<td>Audit</td>
<td>37</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior High</td>
<td>54</td>
<td>9.8</td>
</tr>
<tr>
<td>Diploma</td>
<td>130</td>
<td>23.7</td>
</tr>
<tr>
<td>HND</td>
<td>143</td>
<td>26.0</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>190</td>
<td>34.5</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>33</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than one year</td>
<td>56</td>
<td>10.2</td>
</tr>
<tr>
<td>1-5 years</td>
<td>229</td>
<td>41.6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>113</td>
<td>20.5</td>
</tr>
<tr>
<td>11-15 years</td>
<td>71</td>
<td>12.9</td>
</tr>
<tr>
<td>16-20 years</td>
<td>38</td>
<td>6.9</td>
</tr>
<tr>
<td>20 years and above</td>
<td>43</td>
<td>7.8</td>
</tr>
</tbody>
</table>

| Table I.        |               |
| Profile of respondents |         |
Employee involvement: Amah and Ahiauzu (2013) employee involvement and Denison (2007) organizational culture survey was adopted in measuring employee involvement. The scale which consists of 15 items was modified according to the current study. The five item scale has the reliability of 0.82.

Career development: Career development was measured by adapting Sturges et al. (2002) scale of organizational support and Denison (2007) organizational culture survey. The scale which consists of 12 items was modified according to the current study and generated four items with a reliability of 0.78.

Employee competencies: To measure employee competencies, five competencies which are necessary to enhance organizational effectiveness were measured: self-competency, team competency, change competency, communication competency and ethical competency.

Self-competency: Tafarodi and Swann (1995) self-competence/self-liking scale was adopted in measuring self-competency. The scale which consists of 20 items was modified according to current study and generated six items with a reliability of 0.76.

Team competency: Team competency was measured by adapting Eby and Dobbins (1997) teamwork scale. The scale which consists of eight items was modified according to the current study. The scale is made up of three items with a reliability of 0.74.

Change competency: Change competency was measured by adapting Ashford (1988) change competency scale. The scale which consists of ten items was modified according to the current study and generated two items with a reliability of 0.82.

Communication competency: Communication competency was measured using Wiemann (1977) communication competency scale. The scale which consists of 25 items was modified according to current study and generated five items with a reliability of 0.79.

Ethical competency: Ethical competency was measured using Rest (1994) competent model for determining moral behavior scale and Duckett and Ryden (1994) implementing the moral decision scale. The scale which consists of 35 items was modified according to current study. The scale is made up of five items with a reliability of 0.75.

Organizational effectiveness: Four dimensions of organizational effectiveness were measured: Goal attainment approach, system resource approach, system constituency approach and competing value approach.

Goal attainment approach: Etzioni (1960) and Pfeffer (1977) goal attainment scale was adopted in measuring goal attainment approach. The scale which consists of seven items was modified according to the current study and generated three items with a reliability of 0.77.

System resource approach: Wolfe and Putler (2002) system resource scale was adopted in measuring system resource approach. The scale which consists of five items was modified according to the current study. The five item scale has the reliability of 0.73.

System constituency approach: System constituency was measured by adapting Trieschmann et al. (2000) system constituency approach scale. The scale which consists of six items was modified according to the current study and generated two items with a reliability of 0.81.

Competing value approach: Quinn and Rohrbaugh (1981) competing value scale was adopted in measuring competing value approach. The scale which consists of five items was modified according to the current study and generated two items with a reliability of 0.79.

Analytic approach
The efficacy of the proposed model and hypotheses, were analyzed using the Statistical Package for Social Science (SPSS) 20.0 and the Analysis of Moment Structure (AMOS) 20.0.
In the first step, the researcher tested the measurement model. To establish construct validity, the researcher examined:

- the relationship between the observable indicators and their latent constructs; and
- correlations among sub-dimensions.

The second step was to test the overall model. Baron and Kenny (1986) classical product method was used in examining the mediating role of employee competencies in the relationship between HRD practices and organizational effectiveness.

Handling common method bias

Bagozzi and Yi (1991) define common method bias as the “variance that is attributable to the measurement method rather than to the construct of interest” (p. 426). Craighead et al. (2011) emphasize that the unchecked presence of common method bias can dent the contribution to knowledge of a study. This study adapted the techniques in handling common method bias as suggested by Conway and Lance (2010):

- confirmation of pragmatic strides in assuaging the dangers of method effects;
- construct validity evidence;
- contention for the appropriateness of self-reports; and
- paucity of overlay in items of distinct constructs.

The scales used in the study were adapted from recognized sources and a confirmatory factor analysis was performed for validity testing. The results indicate that the established benchmarks were adequate (Iverson and Maguire, 2000). Throughout the process, respondents were assured of the protections of their anonymity thus reducing evaluation apprehension (Podsakoff et al., 2012). These approaches warranted common method bias consequences remained insignificant.

Results

Descriptive statistics

The descriptive statistics estimates are provided in Table II. The results show that each of the constructs is positively and significantly correlated.

Measurement model

The overall fit of the measurement model as reported in (Table III) was found to be reasonable. The chi-square/df ratios (3.35) were within suggested threshold (i.e. < 5.0) indicating a reasonable fit (Brown and Cudeck, 1993; Wheaton et al., 1977). The root mean

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Training and development</td>
<td>16.91</td>
<td>4.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Employee involvement</td>
<td>13.66</td>
<td>3.78</td>
<td>0.389**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Career development</td>
<td>13.12</td>
<td>3.65</td>
<td>0.317**</td>
<td>0.345**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Employee competencies</td>
<td>67.11</td>
<td>16.85</td>
<td>0.371**</td>
<td>0.310**</td>
<td>0.157**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Organizational effectiveness</td>
<td>121.09</td>
<td>22.83</td>
<td>0.244**</td>
<td>0.235**</td>
<td>0.153**</td>
<td>0.218**</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: **Correlation is significant at the 0.01 level (2-tailed); *correlation is significant at the 0.05 level (2-tailed)
square error of approximation (RMSEA) value of (0.065) and standardized root mean residual (SRMR) value of (0.056) were lower than (0.08) indicating adequate fit (Bentler and Bonnet, 1980; MacCallum and Hong, 1997). In addition, all other indices (i.e. TLI and CFI estimates) were greater than the recommended value of (0.90) indicating adequate fit (Jöreskog and Sörbom, 1996; Tanaka, 1993).

**Reliability and validity of the scales**

To study the validity and reliability of the measurement scales used, a confirmatory factor analysis was carried out. To establish convergent validity, the three important indicators were examined: factor loadings (standardized estimates), average variance extracted (AVE) and composite reliability (CR). The results are depicted in Table IV. Cronbach's coefficient alpha estimates for the constructs ranged between 0.74 and 0.82 exceeding the minimum value of (0.70) as recommended by Nunnally and Bernstein (1994) and Kline (2010). Constructs standard estimates ranged between 0.63 and 0.95 exceeding the recommended criterion of (0.60) or higher (Hair et al., 2006; Kline, 2010) and statistically significant \( p < 0.05 \). Constructs average variance extracted ranged between 0.55 and 0.82 which exceeds suggested threshold of (0.50) indicating higher reliability of a construct (Fornell and Larcker, 1981; Hair et al., 2006). Constructs composite reliability ranged between 0.82 and 0.97 which exceeds the recommended criterion of (0.70) indicating consistency adequacy (Fornell and Larcker, 1981; Hair et al., 2006). From Table V, it can be inferred that employee competencies mediated the relationship between HRD practices and organizational effectiveness (0.05, \( p < 0.05 \)).

**Test of hypotheses**

The proposed hypotheses were tested using structural equation modeling. The results of the structural model test depicted in Table III, indicate a good fit to the data. The chi-square/df ratios of (2.85) were within the suggested threshold (i.e. < 3.0) indicating a good fit (Carmines and McIver, 1981; Hu and Bentler, 1999). The root mean square error of approximation (RMSEA) value of (0.047) and standardized root mean residual (SRMR) value of (0.043) were lower than the suggested thresholds (i.e. less than 0.60 and 0.05) indicating a good fit (Fan and Sivo, 2006; Miles and Shevlin, 1998). In addition, all other indices (i.e. TLI and CFI estimates) were greater than the recommended cut off value of (0.95) indicating a good fit (Bentler, 1990; Hu and Bentler, 1999). Thus, the overall structural model reflects desirable psychometric properties. Table VI, which reports the results of the hypotheses, shows that three out of the four hypotheses were supported and accepted in the data set.

**Discussion**

This study reveals important empirical results that make a significant contribution to clarifying the question of the mediating role of employee competencies in the relationship between HRD practices and organizational effectiveness. Results confirmed \( H1 \) by showing

| Table III. Results of the measurement and structural model tests |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Model                      | \( \chi^2 \) | df | \( \chi^2/df \) | \( p \) | RMSEA | SRMR | TLI | CFI |
| Measurement model           | 207.883 | 62 | 3.35 | 0.000 | 0.065 | 0.056 | 0.906 | 0.925 |
| Structural model – overall model | 105.456 | 37 | 2.85 | 0.000 | 0.047 | 0.043 | 0.961 | 0.981 |

**Notes:** RMSEA = Root mean square of approximation; SRMR = Standardized Root Mean Residual; TLI = Tucker–Lewis index; CFI = Comparative fit index; \( p < 0.00 \)
<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
<th>(A)</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and development</td>
<td>Adequate and relevant knowledge and skills are acquired through training program</td>
<td>0.625</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The skills and knowledge related resources that were used in the training program are available for use on the job</td>
<td>0.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training programs for employees in all aspect of quality</td>
<td>0.680</td>
<td>0.59</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>The activities of the training program provided meet the needs of the employees</td>
<td>0.763</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employees are sponsored to training programs on the basis of relevant training needs</td>
<td>0.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee involvement</td>
<td>Information is widely shared in this organization</td>
<td>0.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collaboration and team work across working functions are vigorously emboldened</td>
<td>0.713</td>
<td>0.61</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Everyone believes that he/she can make an impact</td>
<td>0.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The capacity of employees is regarded as an essential determinant of competitive edge</td>
<td>0.710</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The organization relies on horizontal control and coordination</td>
<td>0.865</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career development</td>
<td>Organization provides training to help develop my career</td>
<td>0.771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.78)</td>
<td>Organization provides a personal development plan</td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organization provide me impartial career advice whenever required</td>
<td>0.778</td>
<td>0.55</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>Management gives work which has developed my skills for the future</td>
<td>0.815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-competency</td>
<td>Owing to my capabilities, I have much potential</td>
<td>0.825</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.76)</td>
<td>I perform very well in many important situations</td>
<td>0.856</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I perform very well at a number of things</td>
<td>0.872</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am capable person</td>
<td>0.641</td>
<td>0.66</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>I am very talented</td>
<td>0.852</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I deal appropriately with challenges</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team competency</td>
<td>I can contribute valuable insight to a team project</td>
<td>0.859</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.74)</td>
<td>I can easily facilitate communication between people</td>
<td>0.846</td>
<td>0.69</td>
<td>0.87</td>
</tr>
<tr>
<td>Change competency</td>
<td>I believe I perform well in job situations following restructuring</td>
<td>0.789</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.82)</td>
<td>Provided training i can perform well following the change</td>
<td>0.884</td>
<td>0.70</td>
<td>0.82</td>
</tr>
<tr>
<td>Communication competency</td>
<td>I am a good listener</td>
<td>0.906</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.79)</td>
<td>I generally know what type of behavior is appropriate in any given situation</td>
<td>0.949</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I generally know how others feel</td>
<td>0.914</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I say the right thing at the right time</td>
<td>0.949</td>
<td>0.82</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>I deal with others effectively</td>
<td>0.790</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical competency</td>
<td>I have the strength of will not to be defeated by direct problem or opposition</td>
<td>0.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(α = 0.75)</td>
<td>I am confident my values, thinking and judgment are appropriate</td>
<td>0.715</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I try to positively face up to difficult situations where views clash</td>
<td>0.703</td>
<td>0.65</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>I make decision based on reliable evidence</td>
<td>0.889</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I make decision with priority on the thoughts and values of the organization</td>
<td>0.893</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table IV.
Confirmatory factor analysis factor names, factor loadings and Cronbach’s alpha (continued)
that training and development has a significant influence on employee competencies. This results parallels findings by other studies which found that training and development improves the expertise and competence of employees which sequentially boost their efficiency and performance (Chang et al., 2011; Mertens, 2000; Youndt, et al., 1996; Youndt and Snell, 2004). The result validates the assumptions of researchers (Bartlett, 2001; Garavan and Carbery, 2012). Results of H2 confirm a significant influence of employee involvement on employee competencies. This result is consistent with the empirical findings of Rossler and Koelling (1993) who postulate that employee involvement builds individual competence, control and obligation leading to a concerted foresight, values and aspirations. The results are in line with the opinion of researches (Denison, 2007; Gowen, 1990). Results of the H3 indicate that career development does not have any significant influence on employee competencies. This result is not consistent with the empirical findings of

<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
<th>(λ)</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal attainment approach</td>
<td>Identify new business opportunities</td>
<td>0.729</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anticipate surprises and crises</td>
<td>0.710</td>
<td>0.55</td>
<td>0.79</td>
</tr>
<tr>
<td>System constituency approach</td>
<td>Decrease market response times</td>
<td>0.784</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anticipate potential market opportunities for new products/services</td>
<td>0.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competing value approach</td>
<td>Avoid overlapping development of corporate initiatives</td>
<td>0.742</td>
<td>0.56</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>Rapidly commercialize new innovations</td>
<td>0.774</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quickly adapt its goals and objectives to industry/market changes</td>
<td>0.756</td>
<td>0.59</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Notes: AVE represents average variance extracted; CR represents composite reliability. All factor loadings are significant at p < 0.05

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta coefficient</th>
<th>p value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. Training and development has a significant influence on employee competencies</td>
<td>0.400</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2. Employee involvement has a significant influence on employee competencies</td>
<td>0.292</td>
<td>0.021</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3. Career development has a significant influence on employee competencies</td>
<td>-0.069</td>
<td>0.120</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4. HRD practices influences organizational effectiveness through the mediating role of employee competencies</td>
<td>0.312</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
McGraw (2014) who emphasized that the effective implementation of individual career management processes significantly enhances employee competency and improve individual performance. The result does not support the opinions of Gilley et al. (2009). Results of $H4$ indicate that HRD practices influences organizational effectiveness through the mediating role of employee competencies. This results support the supposition by Draganidis and Mentzas (2006) who accentuated that employee competencies provide the potential for effectiveness in task performance. The result validates the assumptions of researchers (Hsu et al., 2007; Kehoe and Wright, 2013; Youndt and Snell, 2004).

**Theoretical implications**
The finding of this study support the contention in literature on the subject of improvements of employee competencies suggested by Diaz-Fernandez et al. (2014) about which further research is needed in the banking industry. HRD plays an important role in all sectors of the economy; however, it is especially important in banking industry where their significance is even greater. The banking industry is characterized as being intensive as much more extensive direct contact exist between employees and customers at the service interface (Delery and Doty, 1996). The finding of this study addresses the recommendation to further investigate the relationship between HRD practices and organizational effectiveness based on the premise that investment in HRD practices are important strategic mechanisms that stimulate positive behavior in individuals and impact their knowledge, skills and attitudes which increase productivity and performance (Clardy, 2008). Relatively few studies exist on HRD practices in the West Africa banking setting (Darkey-Baah, 2014; Gberevbie, 2010; Hinson et al., 2006). Similarly, relatively few studies exited on the mediating role of employee competencies in these organizations (Liao et al., 2009; Takeuchi et al., 2009). The finding of the study also assists in clarifying the ambiguity in literature in relation to HRD practices and organizational effectiveness (Alagaraja et al., 2015; Rahman et al., 2013; Tseng and McLean, 2008). The findings of the study indicate that HRD practices influence employee competencies through training and development interventions which is the systematic acquisition of skills, rules, concepts or attitudes that result in improved performance (Goldstein, 1986, p. 837) and employee involvement interventions which is the degree to which employees share information, knowledge, rewards and power throughout the organization (Randolph, 2000). The findings support the suppositions of the theory of human capital initially developed by Becker (1964, 1993) who regarded training as a form of investment that leads to higher individual productivity. They are also consistent with the results of other authors who found that organizational efforts in training and development are an investment in assets rather than an expense (Chang et al., 2011; Yamao et al., 2009; Youndt and Snell, 2004). The findings are in line with opinion of researchers (Youndt, et al., 1996). Similarly, the findings support the contention of Denison and Mishra (1995) who emphasized that employee involvement is an important dimension of corporate culture that influences its effectiveness. They are also consistent with the empirical findings of Denison (1990) who contended that receiving input from organization members increases the quality of the decisions and improves their implementation. The findings are in line with the opinion of researchers (McShane and Von Glinow, 2003; Vroom and Jago, 1988). The study further revealed that employee competencies mediated the relationship between HRD practices and organizational effectiveness. The findings are consistent with the results of several other authors who found that employee competencies play a central role for sustained competitive advantage (Hendry and Pettigrew, 1986; Kamoche, 1996; Lado and Wilson, 1994). They are also consistent with the findings of several other authors who contend that employees'
membership perception and commitment to the organization tend to increase their efforts toward achieving organizational goals beyond the minimum task requirement (Macky and Boxall, 2007; Wright et al., 2005). The findings are in line with the opinion of researches (Hoge et al., 2005; McCall 1998). Previous empirical and theoretical study on HRD and organizational effectiveness linkage focused on strategy and design, whereas this current study focused on employees. This study contributes to the scarce number of previous studies that have focused on the important function of employee competencies in the HRD and organizational effectiveness linkage literature in the banking industry. The findings of this study highlight the important role of employee competencies as a mediating mechanism between HRD practices and organizational effectiveness. Consequently, this current study finding has not been previously established empirically in literature. Distinctively, this current study extends the literature by adducing evidence empirically that employee competencies mediates the relationship between HRD practices and organizational effectiveness of the banking industry in Ghana.

Training and HRD implication

The results of this study leads to the consideration of a series of implications for the banking industry. It is recommended for policymakers, stakeholders and management of banks to encourage the espousing of suitable and well-articulated HRD practices in banking industry. HRD practices the study revealed are fundamental determinates for workers to develop competencies which considerably improves organizational functioning (Kehoe and Wright, 2013). Along the same lines, Shih et al. (2006) asserted that HRD practices help improve the skills and abilities of employees to generate returns through increased productivity and business performance. Sung and Choi (2014) concurred with this view when they proposed that organizations should design and implement HRD practices to enable people to work effectively and attain performance expectations through improved individual competencies. HRD researchers assert that the discretionary efforts of employees on the basis of their competence induced by HRD promote organizational performance (Nguyen et al., 2010; Tharenou et al., 2007). Aragon-Sanchez et al. (2003) posited that HRD efforts provide a wide array of training and development opportunities for employees and invariably employees exposed to HRD programs are in a favorable position to improve various task-related KSAs. The findings of the study indicated that HRD practices influences employee competencies through training and development interventions. Training and development interventions are designed to maintain and improve effectiveness and efficiency of individuals and groups in an organization (Mondy and Noe, 1981). Training is a positive predictor of knowledge and skills of individuals (Bates and Chen, 2004; Clardy, 2008). This view appears to be supported by Liao et al. (2009) and Schwoerer et al. (2005) who argued that employees exposed to various HRD programs are in a good position to improve their capability and thus effectively leverage their capacity in conducting their tasks. Management of the hotels should ensure that employees are sponsored to training programs on the basis of relevant training needs. Training needs assessment should be established on a cogent performance appraisal mechanism. Additionally, the training needs identified should be valuable and realistic and should be established on the business strategy of the organization. Management of the hotels should also ensure training programs are conducted for employees in all facets of quality and see to it that the activities of the training program meet the needs of the employees. Also, management should ensure that adequate and relevant knowledge and skills are acquired through training programs.

The findings of the study further revealed that employee competencies significantly mediated the relationship between HRD practices and organizational effectiveness. The
study highlights the need to create a system of enhancing the competencies of the employees. Bhardwaj (2013) contends that improvements in employee competencies affect the behavior of individuals, teams and effectiveness of the organization. Therefore, the banking industry should encourage the improvements of these competencies since they define the core abilities required for successful performance in a given job (Parry, 1998). Garavan (1991) and McCracken and Wallace (2000) deliberated that a strategically focused HRD structure is argued to consist of the ability of organizations to formulate plans and policies for HRD and integrate them with plans and policies in HR and also with overall business plans. Consequently, the study suggests that HRD practices should be configured in a way that employees can perform effectively and meet performance expectation through enhanced personal competencies which will culminate in improvements in organizational effectiveness.

Limitations and suggestions for future study
There are certain limitations that offer important avenues for future research. Data were collected using a cross-sectional research design; however, the adoption of a longitudinal research design would have assisted in testing the casual relationship among variables. Moreover, qualitative research design was used in analyzing data collected through structured questionnaires. A profound qualitative data are encouraged in future studies. The adoption of both qualitative and quantitative approaches would have provided a more in-depth as well as valuable clarifications. Furthermore, the data used in this study are extensively subjective opinions of employees. Adoption of objective measures is encouraged in future studies. This area could be improved by receiving feedback from multiple source and cross-validating the responses to identify personal biases from individual respondents. Another limitation is the generalizability of the study. The results of this study cannot be generalized because they come from a sample of banks in a specific context. We should also be careful when applying the results obtained to other sectors given the specific characteristics of the banking industry. The present study meaningfully expands the SHRD literature by elaborating different types of HRD practices and conceptually and empirically exploring the mediating mechanism that explains the effect of HRD practices on organizational effectiveness. As revealed in the present study, employee competencies mediated the relationship between HRD practices and organizational effectiveness. Nevertheless, further conceptual and empirical endeavors are needed to achieve a clear and comprehensive understanding of the HRD – organizational effectiveness link. With regard to HRD practices, employee performance could be a promising mediating mechanism that underlies the effect of HRD practices on organizational effectiveness. Future research is encouraged to examine the possible mediating effect of employee performance in the relationship between HRD practices and organizational effectiveness using distinct HRD practices.

References


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