Ghanaian Headteachers Creative Problem-Solving Abilities’ Indirect Effects on Teachers’ Commitment to Stay: The Role of Corporate Brand Personality

Stanley K.M. Semarco

1 Ghana Institute of Journalism / Accra Institute of Technology: Open University of Malaysia, Ghana Center

Abstract: A model depicting the indirect effects of a school leader’s creative problem solving ability attributes on the teachers’ commitment to stay (retention) with corporate brand personality of Ghanaian pre-tertiary schools as a mediator is explored. The aim was to fit the model to the data. Data was gathered from two hundred and seventy nine pre-tertiary schools. Each school’s headteacher using the creative problem solving ability attributes questionnaire and two supporting teachers using the corporate brand personality dimensions and commitment to stay questionnaires provided data for the study. The result showed that the hypothesised model of the indirect linkage between creative problem-solving ability attributes and commitment to stay, with corporate brand personality serving as a mediator, fit the data. Significant indirect effects of the creative problem-solving ability attributes on employee commitment to stay were observed; with the corporate brand personality serving as a significant mediator. Results also indicated that only divergent thinking had a significant indirect effect on corporate brand personality, with motivation and knowledge showing significant direct effects. The findings and associated implications such as the brand - knowledge linkage are discussed.

Keywords: Corporate brand personality; creative problem-solving attributes; commitment to stay

1. Introduction

Ghanaian practising headteachers are expected to be managerial leaders and administrators although most of them are not trained professional managers with requisite formal managerial leadership knowledge and skills (Kusi, 2008; Oduro and Bosu, 2010). Again, Ghana’s desire to decentralise education management at the district levels (Ministry of Education and Ghana Education Service, 2012) raises the need for Ghanaian school leaders to brand position their schools. The branding process is proposed to aim at making these schools the teaching and learning institutions as well as the teachers’ employer of choice: employer branding. Researchers have posited that branding the school with symbolic benefits to all stakeholders will enable the school to capture opportunities and gain competitive advantage (Hocine and Zhang, 2014) in areas such as teacher commitment to stay in the school.

There is the need to understand the role of corporate brand personality concept in mediating the relationship between school managers’ managerial leadership and administrative practises and teachers’ commitment to stay and teach in their various schools. The formation of corporate brand personality, according to Keller and Richey (2006: 76), ‘is often determined by direct contact with a wide range of employees’ which may result in consensus building and understanding among the employees. This follows from the fact that employees will only commit to their employers where there is some level of consensus and understanding (Bergstrom, Blumenthal and Crothers 2002).

The ‘outcomes of the mental process for solving a problem with creativity and value appreciated by someone for whom the problem situation improves’ (Lin, 2010: 9) will be relevant for the education manager. For instance, business schools, just like all educational institutions, “are not only obliged to be promoters of management theories and practices but are, arguably, duty-bound to be exemplars of ‘best practice’ ... in terms of the management of their organisations, and, of course, their corporate brands” for success (Balmer and Wang, 2016: 10). Furthermore, the 21st century organisations have to be creative (Keller and Richey, 2006) in terms of how the leaders manage their organisations, and, obviously, their corporate brands (Balmer and Wang, 2016) to succeed.

1.1. Problem Statement, Objectives and Significance

Understanding the role play by headteacher’s practice of specific managerial behaviours for effective leadership (Yukl, 2012), will be efficacious. For instance, this study’s examination of headteachers’ creative problem-solving ability (Cho, 2003) in branding schools for teacher commitment to stay in the school and teach will be efficacious. How
relevant this proposition is to education management at the pre-tertiary schools in Ghana calls for the examination of:

1) how school leaders’ creative problem-solving ability attributes contribute to the creation of corporate brand personality and

2) the applicability and relevance of teachers’ perceived corporate brand personality to their commitment to stay in the schools and perform their jobs.

This study sought to understand the connection between school leaders’ creative problem-solving ability attributes which include domain-specific and general knowledge and skills, motivation, convergent thinking, divergent thinking, and environment attributes (Cho, 1999; Cho, 2003; Cho, 2007; Lin, 2010; Lin and Cho, 2011); schools’ corporate brand personality (Geuens et al., 2009; Keller and Richey, 2006); and teachers’ commitment to stay (Carter, 2011; Meyer et al., 1993). Specifically this study first examined the linkages between creative problem-solving ability attributes, corporate brand personality and commitment to stay. Secondly, this study in fitting a model to the data gathered, explored the direct and indirect predictive influence of the creative problem solving ability attributes on corporate brand personality and commitment to stay.

In line with the suggestions of Balmer and Wang (2016) who focused on management cognitions of corporate brand building and business schools’ success, this study will significantly provide insight into Ghanaian school leader’s creative problem-solving activities. This is akin to Yukl’s (2012) specific leader behaviours: encouraging innovation and problem solving; explored here in relation with corporate brand personality building and management for employee commitment to stay.

1.2. Research Questions

The associated research questions posed were Research Question (RQ) 1: ‘what is the level of relationship between the creative problem solving ability attributes; corporate brand personality; and commitment to stay (retention)?’ and Research Question (RQ) 2): ‘what is the mediating effect of corporate brand personality on the relationship between creative problem solving ability attributes and commitment to stay on the job?’

2. Literature Review

2.1. Theoretical and Conceptual Framework:

The Dynamic System Model of Creative Problem Solving Ability: Cho (1999, 2003) synthesized various theories of creativity (for detail reviews, see Lin, 2010; Lin and Cho, 2011) and proposed that creative problem solving ability functions like an organic system that reflects a dynamic system model. In this dynamic system model, the attributes are theorised to dynamically interact with each other, such that, convergent thinking (CT), divergent thinking (DT) and motivation, function as tools that utilize domain-specific and general knowledge and skills in order to solve problems in a novel and useful approach. Depending on the micro- and macro-environmental conditions, the creative problem solving ability, can prosper or wither (Cho, 1999; 2003). As noted in an editorial by Bush (2016: 711) ‘principals, teachers, and the wider community, are more likely to know how to develop their schools effectively than bureaucrats in their (often remote) offices’. Within the context of the efforts to shift to decentralisation of education management at the district levels, the headteachers’ creative problem solving ability is more likely to be essential for the demanding roles expected of the Ghanaian practising headteachers.

The headteacher who creatively solves school problems is likely to utilize domain-specific (educational management, administration and leadership) and general knowledge and skills to think divergently about school management issues and to identify the best solution: a convergent thinking process. The headteacher’s level of motivation and the micro- and macro-environmental conditions will be essential for the very different demands of the school leadership role. Researchers of school leadership practice had not examined Cho’s (1999; 2003) creative problem solving ability attributes in their investigation and understandings of school leadership practice in the area schools’ corporate brand personality and staff commitment to stay. The Dynamic System Model of Creative Problem Solving Ability (Cho, 1999; 2003) was chosen and used in this study since the creative problem solving ability clearly reflects the real-life problem-solving processes expected of headteachers who are to lead and manage educational institutions (Kusi, 2008; Oduro and Bosu, 2010) at the district levels (Ministry of Education and Ghana Education Service, 2012).

Corporate Brand Personality Model: Creatively determining corporate brand personality is one of such real-life problem examined in this study. Keller and Richey’s (2006) theorised that corporate brand personality traits of a successful 21st century business is much more about perceptions which reflects the values, actions, and words of all employees of the corporation. ‘What a company is and how it presents itself to the consumer are defined by its corporate brand personality’ (Keller and Richey, 2006: 74). The theorists believe that the corporate personality traits: passionate and compassionate, creative and disciplined, agile and collaborative traits can be grouped into three
dimensions, which guide employees of the organisation. The emphasis on creativity concept in corporate branding makes Keller and Richey’s (2006) corporate brand personality model relevant but has to be integrated with Geuens et al.’s (2009: 106) brand personality model to allow for empirical testing of the linkage between corporate brand personality ‘on an aggregated level across multiple brands’ and commitment to stay as is needed in this study. Geuens et al.’s (2009) use of Coca-Cola as the focal brand in one of their studies and their restriction of brand personality to human personality traits in line with Azoulay and Kapferer (2003); motivated this study to integrate their twelve brand personality items into Keller and Richey’s (2006) six corporate personality items. This resulted in thirteen corporate brand personality items, grouped into five dimensions to measure schools’ corporate brand personality in this study.

Three-Component Model of Commitment: The employee brand commitment engenders employees’ willingness to do anything to keep on working for the brand and has been shown to have a linkage with employee brand commitment (Carter, 2011). This study extended the employee brand commitment concepts to the area of education management by conceptually linking schools’ corporate brand personality to teachers’ commitment to stay and teach. In so doing, this study focused on the normative commitment component of Meyer and Allen’s (1997) three-component model of commitment. This three-component model proposes that the affective, normative, and continuance organizational commitments are experienced by the employee as three simultaneous mindsets. The continuance commitment and affective commitment were not employed in this study. The normative commitment employed in this study reflects commitment that is based on employees’ feeling that they ought to remain with the organisation (Allen and Meyer, 1990). It also reflects the norms of reciprocity (Meyer et al., 2003; Meyer et al., 2006) described as perceived obligation towards the organization (Meyer and Allen, 1997).

To sum up, the theoretical models of Cho’s (2003) Dynamic System Model of Creative Problem Solving Ability; Keller and Richey’s (2006) corporate brand personality model and Geuens, Weijters and Wulf’s (2009) brand personality framework as well as the three-component model of commitment developed by Meyer and Allen (1997) shaped how the objectives, research questions and hypotheses of this study were examined. The integrated models described above formed the conceptual framework, aimed at facilitating our understanding of the mediating influence of corporate brand personality on the linkage between the leaders’ creative problem solving ability attributes and teachers’ commitment to stay with the school as a brand (see figure 1, below).

2.2. Review of Related Studies

Creative Problem Solving and Corporate Brand Personality: Yukl (2012) noted that people within an organizational culture that values creativity can be encouraged to look at problems from different perspectives. When a leader ‘identifies work-related problems that can disrupt operations, makes a systematic but rapid diagnosis, and takes action to resolve the problems in a decisive and confident way’ (Yukl, 2012: 84) such an individual is presumed to be practicing problem solving. These can facilitate problem solving through the use of creative ideas, innovation and thinking outside the box. Yukl (2012: 77) had called for ‘more studies ... to discover how a leader’s skills and personality traits influence the choice of behaviors’ for effective leadership. Furthermore, visionary and creative leadership are advocated in the building of a school’s brand (Balmer and Wang, 2016) but much less attention is given to the role of the creative problem solving ability attributes (Cho, 2003; Lin and Cho, 2011) of leaders. In line with Yukl’s (2012) call, this study explored the creative ability attributes associated with a leader’s problem solving behaviour among heads of pre-tertiary schools in Ghana within the context of corporate brand personality and commitment to stay. This is based on the assertion that creativity, a desirable personality-oriented trait, is relevant in people’s problems solving efforts (Lin, 2010).

Researchers have found linkages between creative outcomes and specific creativity factors such as divergent thinking, convergent thinking, work environment (supervisor support), task motivation (intrinsic versus extrinsic, autonomous versus controlled) and knowledge (Amabile, 1997; Cho, 2007; de Stobbeleur, Ashford and Buyens, 2011; Dul and Ceylan, 2011; Ekmeści and Tekin, 2011; Gehani, 2011; Gerhart and Fang, 2015; Hennessey and Amabile, 2010; Lin, 2010; Lin and Cho, 2011; Okpara, 2007; Paramitha and Indarti, 2013; Runco and Acar, 2012; Walter, 2012). Along the lines of Keller and Richey (2006: 76) views, a successful school ‘must be creative in its approach to serving its customers and winning in the market...’ where staff of schools are to be the main sources of innovation and creativity (Gichohi, 2014) and exemplars of ‘best practice’ in areas such as management and branding of the school organisation (Balmer and Wang, 2016).

Among senior managers of business schools, for instance, Balmer and Wang (2016) found strategic
management; stakeholder management; corporate communications; service; leadership; and commitment to be key dimensions of corporate brand building and management in relation to school success. Although, the call that adequate attention is given to employee creativity (Amabile, Conti, Coon, Lazenby and Herron, 1996); it is also important to examine the creative attributes of problem-solving ability among leadership (Yukl, 2012) and how each attribute relates to outcomes associated with the organisation (corporate brand personality) and the employees (commitment to stay – retention). This is more likely to be vital in the processes of gaining competitive advantage and capturing competitive opportunities under the assumption that the school is perceived as an employer and education institution of choice (employer branding: Hocine and Zhang, 2014).

Brodin, Coulibaly and Ladwein (2016: 55) asserted that ‘creativity can affect brand image’ and by extension, brand personality. Linked to brand image, Scremin (2007: 18) noted that ‘brand personality traits work as cues about the attractiveness and match of the branded product in relation to one’s self concept’. Shiau (2014) averred that brand image is significantly and positively influenced by product innovation. Similarly, other studies have noted linkages between aspects of innovativeness (as well as creativity) and brand concepts (de Haan, Osborne and Sherry, 2015; Hananysha, Hilman and Abdul-Ghani, 2014; Jin, Goh, Huffman and Yuan, 2015; Li, Dou, Wang and Zhou, 2008).

In terms of knowledge, a (Cho, 2003) and brand, Richards, Foster and Morgan (specific creative ability attributes 1998) comment that brand which is essentially knowledge, over time, builds into a considerable body of knowledge, which can be used by an institution to gain critical competitive advantage. Geuens et al. (2009) found some brands to be linked to types of motivation, another specific creative ability attributes. Again, creative dimensions of novelty and usefulness were found to be positively related to attitude toward the brand (Sheinin, Varki and Ashley, 2011). The mediating effect of knowledge attribute on the linkage between motivation, convergent thinking, divergent thinking, and environment attributes (Lin, 2010; Lin and Cho, 2011) on one side and corporate brand personality (Balmer and Wang, 2016; Keller and Richey, 2006) on the other was examined in this study. This builds on and contributes to works of Lin (2010) as well as Lin and Cho (2011) who found knowledge attribute to mediate the influence of motivation, convergent thinking, divergent thinking, and environment attributes on creative problem-solving. Solving a problem may require the leader to directly contact a wide range of employees. The application of the school leader’s creative problem-solving ability (Cho, 2003) may have greater currency in the formation of corporate brand personality which ‘is often determined by direct contact with a wide range of employees’ (Keller and Richey, 2006: 76).

Corporate Brand and Corporate Brand Personality: Theorists such as Aaker (1997), Aaker (2000), Aaker et al. (2001), Geuens et al. (2009), as well as, Milas and Mlačić (2007) have studied the five-factor brand personality dimensions ability and associated meanings. The brand personality is closely linked to the symbolic aspect of brands, such as, the employer brand (Lievens, 2007; Martin, 2007; Scremin, 2007; Yi and La, 2006). Getting employees to identify with the brand personality is among the objectives of employer branding (Yuksel, 2015). The development and communication of the employee value proposition had been advocated (Michaels, Handfield-Jones and Axelrod, 2001) towards the formation of employer brand (Ambler and Barrow, 1996; Knox and Freeman, 2006). The ‘employer brand has several dimensions to it’ (Wallace, Lings, Cameron and Sheldon, 2014: 28). One of such dimension is the corporate image. Keller and Richey (2006: 75) posit that ‘a key component of the corporate image is the corporate brand personality’. The corporate brand personality is argued as a form of brand personality underpinned by personality concepts specific to a corporate brand (Ambler and Barrow, 1996; Keller and Richey, 2006).

The building of a school’s brand, according to Balmer and Wang (2016), should be led by the visionary and personality leadership of the school. Understanding the process of carefully managing corporate brand personality which reflects the collective ‘human characteristics or traits of the employees of a corporation as a whole’ (Keller and Richey, 2006: 75) including the personality of the school’s leadership could be efficacious. As such, this study sought to stimulate the re-examination of the corporate brand personality management among brand scholars and advocate the practice among educational leaders, managers and administrators.

Corporate Brand Personality and Commitment to Stay: Employees’ image types (self, public and employer brand) were individually found to linearly explain turnover or retention intentions (Clow and Baack, 2010; Sokro, 2012; Takase, Maude and Manias, 2006; Wallace, Lings, Cameron and Sheldon, 2014). Backhaus and Tikoo (2004). Matanda and Ndubisi (2013) argued that employer branding messages had an indirect effect on employees’ intention to stay. Florea (2011) as well as Kucherov and Zavyalova (2012) found strong employer branded organisations engender lower staff turnover rates. Rampi and Kenning (2014) showed brand personality traits influenced employer brand trust and affect which jointly explained the variance in employer brand attractiveness operationalised as the intent to apply for and accept a job. Earlier,
Carter in a 2011 study found three of the four corporate brand personality dimensions examined to significantly influence employee brand commitment (employees would do anything to keep on working for the brand). Akin to normative commitment, employee brand commitment “refers to the employee’s willingness and advocacy of the brand to other people” coupled with the view that the employee would do anything to keep on working for the brand (Carter, 2011: 4). Meyer et al.’s (1993) normative commitment adapted in this study does not only ‘reflects commitment based on perceived obligation towards the organization’ (Jaros, 2007: 7) but ‘is based on the belief that an employee has an obligation to remain with the organization’ (Price, 1997: 342). These assertions reflect individuals’ devotion and loyalty to their institutions (Meyer and Allen, 1997).

Commitment of employee is ‘vital for organizations seeking to retain their top performers in an increasingly turbulent labour market’ (Khasawneh, Omari and Abu-Tineh, 2012: 494-495). Sinha and Sinha (2012: 146) have asserted that ‘there is no single recipe for keeping employees with a company’ such as, an education institution. In a similar vein, teachers’ commitment to stay on the job is a complex concept. For instance, the teaching profession had been described as a revolving-door profession when it comes to attracting and retaining quality teachers (Ingersoll, 2003). Further understanding is, however, needed in the area of corporate brand personality as a tool that can assist in engendering employee commitment to stay, thereby, building on the employer brand attractiveness findings. How the school’s corporate brand personality affects teachers’ commitment to stay (retention) and keep on working for the school as a brand was examined in this study. This study examined the linkage between corporate brand personality and Carter’s (2011) employee brand commitment: operationalised as commitment to stay (retention), among employees who ‘have been working for the organisation for a couple of years’ (Rampi and Kenning, 2014: 230).

2.3. Hypotheses of the Study

Based on the above reviews the hypotheses 1, 2 and 3 were examined as follows: Hypothesis 1 (H1): ‘There will be direct predictive linkages between Headteachers’ creative problem-solving attributes, teachers’ perception of the schools’ corporate brand personality and commitment to stay’; Hypothesis 2 (H2): “Headteachers’ divergent thinking, convergent thinking, motivation and environment relationships with the schools’ corporate brand personality will be significantly mediated by Headteachers’ knowledge”; and Hypothesis 3 (H3): “Headteachers’ creative problem-solving attributes: knowledge, divergent thinking, convergent thinking, motivation and environment will have significant indirect effects on teachers’ commitment to stay; with the schools’ corporate brand personality being a significant mediator”.

3. Methodology

3.1. Population and Sample

The Policy Framework on Pre-Tertiary Teacher Professional Development and Management in Ghana described the pre-tertiary education sector per section 2, sub-section 2.3, clause 2.3.1 as ‘pre-tertiary education consists of 1) the basic school level, 2) the second cycle level which consists of senior high school, technical/vocational institutions and 3) special schools. These three levels constitute the pre-tertiary education level’ (Ministry of Education and Ghana Education Service, 2012: 12). This study’s target population consists of headteachers of basic schools and second cycle schools/institutions.

The Ashanti, Eastern, Greater Accra, Northern and Western regions were selected out of the ten regions of Ghana from which 350 pre-tertiary schools: primary, junior high and senior high schools as well as technical/vocational institutions in the urban and rural settings were randomly sampled using a multistage sampling design. The projected sample size was based on Ministry of Education’s (2012) EMIS 2011/2012 Twenty-fourth School Census and Ghana Statistical Service’s (2012) 2010 Population Census. Out of the 350 sampled schools, only 336 schools completed and returned the survey, which was further reduced to 279 institutions after reviewing the questionnaires for appropriateness. By implication, 279 headteachers participated in the study. Headteacher was operationalised in this study to represent a head of school in the pre-tertiary education sector and is the unit of analysis. It is worth noting that two teaching staff (first teacher and last teacher) per participating headteacher selected from the list of teaching staff generated by the headteacher provided data with their headteacher as the focal point.

<table>
<thead>
<tr>
<th>Region</th>
<th>SHS/TVET</th>
<th>JHS</th>
<th>Primary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gt. Accra</td>
<td>2</td>
<td>53</td>
<td>24</td>
<td>79</td>
</tr>
<tr>
<td>Eastern</td>
<td>5</td>
<td>14</td>
<td>12</td>
<td>31</td>
</tr>
</tbody>
</table>
3.2. Design

A correlational cross-sectional research survey design was employed. The correlation test and structural equation modelling techniques were utilized to analyze the relationships among the creative problem solving ability attributes, corporate brand personality and commitment to stay.

3.3. Questionnaires and Data Gathering

This study’s Creative Problem-Solving Ability Attributes Questionnaire is an adapted self-report questionnaire based on works of Cho (2003) and Lin (2010). The headteachers rated each item on the Creative Problem-Solving Ability Attributes Questionnaire from 1 (Never) to 5 (Always). The sum of the rated items for a creative problem solving ability attributes dimension reflects the score of the dimension: either 4 to 20 or 6 to 30. The creative problem-solving ability attributes exhibited good internal consistencies for the pilot study (0.86 < \( \alpha < 0.90 \)) and in the main study (0.66 < \( \alpha < 0.86 \)).

Two of the school’s teaching staff provided information on their perception of the schools’ corporate brand personality and commitment to stay (retention). The two teachers’ scores for each variable were averaged and used for the analysis. The present study integrated Keller and Richey’s (2006) six brand personality traits into Geuens et al.’s (2009) twelve brand personality traits to develop the Five-Factor Corporate Brand Personality Questionnaire which consist Conscientiousness dimension: Down to earth and Stable traits; Activity dimension: Responsible, Disciplined, Dynamic, Collaborative, and Bold traits; Resourceful dimension: Innovative and Agile traits; Emotional dimension: Passionate and Compassionate traits; and Simplicity dimension: Down to earth and Stable traits.

The teachers were to rate each item on the Corporate Brand Personality questionnaire from 1 (Not at all) to 5 (Completely). The scores ranged from 10 to 50. The internal consistency was reasonable for both pilot study (\( \alpha=0.61 \)) and main study (\( \alpha=0.63 \)).

4. Results and Interpretation

A significant relationship was found between corporate brand personality and creative problem-solving ability attributes (\( r=.157; p<.01 \)) at the aggregated levels. Whereas commitment to stay (retention) was significantly related to corporate brand personality (\( r=.284; p<.01 \)) and motivation attribute (\( r=.134, p<.05 \)), it was insignificantly related to the aggregated creative problem-solving ability attributes. The specific creative problem-solving ability attributes were significantly related with each other as well as the aggregated creative problem-solving ability attributes (\( r=.157 < r < .783, p<.01 \)) (See Table 2 below).

<table>
<thead>
<tr>
<th>Var</th>
<th>CS</th>
<th>BP</th>
<th>CA</th>
<th>DT</th>
<th>CT</th>
<th>M</th>
<th>E</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>3.04</td>
<td>3.42</td>
<td>3.54</td>
<td>3.54</td>
<td>3.75</td>
<td>3.68</td>
<td>3.57</td>
<td>3.18</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.49</td>
<td>0.56</td>
<td>0.53</td>
<td>0.68</td>
<td>0.67</td>
<td>0.76</td>
<td>0.8</td>
<td>0.77</td>
</tr>
<tr>
<td>CS</td>
<td></td>
<td>.28**</td>
<td></td>
<td>.04</td>
<td>.04</td>
<td>-0.02</td>
<td>.13*</td>
<td>.04</td>
</tr>
<tr>
<td>BP</td>
<td></td>
<td></td>
<td>.24**</td>
<td></td>
<td>.12</td>
<td>.15</td>
<td>.24**</td>
<td>.20**</td>
</tr>
<tr>
<td>CA</td>
<td></td>
<td></td>
<td></td>
<td>.76**</td>
<td></td>
<td>.78**</td>
<td>.68**</td>
<td>.78**</td>
</tr>
<tr>
<td>DT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.51**</td>
<td>.41**</td>
<td>.51**</td>
<td>.36**</td>
</tr>
<tr>
<td>CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.49**</td>
<td>.55**</td>
<td>.33**</td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.39**</td>
<td>.16**</td>
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<tr>
<td>E</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.33**</td>
</tr>
</tbody>
</table>

**. p< 0.01; *. p< 0.05 level; n = 279. Source: Field Data, 2016. CS: Commitment to Stay; BP: Brand Personality; CA: Creative Attributes; DT: Divergent thinking; CT: Convergent thinking; M: Motivation; E: Environment; K: Knowledge

The present study hypothesized a close fit of Creative Problem Solving Ability Attributes and Corporate Brand Personality model to the sample data. The AMOS path analysis Chi-Square indices as shown in the diagram in Figure 1 below indicates that the overall hypothesized model, (Dynamic System Model of Creative Problem Solving, Brand Personality and Commitment to Stay) fit the observed data, where the indices of \( \chi^2 (8, N=279) = 9.497, p=0.302 \), as desired. An adequate fit between the overall hypothetical model and the sample data was further indicated: \( CFI = .996 \) in line with Hu and
Bentler’s (1999) suggestion, which is greater than 0.95 as required (Bentler, 1990); NFI = 0.977; RMSEA = 0.026 (with its confidence intervals of 90% CI: 0.0001 - 0.078) as well as the relative chi-square (χ²/df) of 1.187 (see Byrne, 1989).

The results showed that there exist significant reciprocal linkages between motivation, environment, convergent thinking and divergent thinking (β=.39, p < .001 to β=.55, p < .001). Apart from the insignificant direct effect of motivation (β=-.080, p =.219), the creative problem-solving attributes understudy showed significant direct effect on knowledge (β=.156, p < .05 to β=.261, p < .001). The results also showed that headteachers’ knowledge (β=.12, p < .05) and motivation (β=.22, p < .001) significantly predicted teachers perceived corporate brand personality. Teachers’ perceived corporate brand personality significantly predicted their commitment to stay (retention). The first hypothesis of the study: “There will be direct predictive linkages between Headteachers’ creative problem-solving attributes, teachers’ perception of the schools’ corporate brand personality and commitment to stay” is generally supported by the analysed data except for the motivation and knowledge path (see Figure 1 below).

![Figure 1. Dynamic System Model of Creative Problem Solving, Brand Personality and Commitment to Stay (Retention); Source: Field Data, 2016](image)

Table 3: Bayesian Analysis Results of the Standardised Indirect Effects of Creative Problem-Solving Ability Attributes on Corporate Brand Personality with Knowledge as a Mediator

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>95% Lower Bound</th>
<th>95% Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divergent thinking</td>
<td>0.028</td>
<td>0.001</td>
<td>0.064</td>
</tr>
<tr>
<td>Convergent thinking</td>
<td>0.019</td>
<td>-0.001</td>
<td>0.051</td>
</tr>
<tr>
<td>Motivation</td>
<td>-0.010</td>
<td>-0.033</td>
<td>0.006</td>
</tr>
<tr>
<td>Environment</td>
<td>0.019</td>
<td>-0.001</td>
<td>0.050</td>
</tr>
</tbody>
</table>

Source: Field Data, 2016

The present study examined indirect effect hypotheses, by using the Bayesian analysis to estimate the posterior distribution of the indirect effects of headteachers’ creative problem-solving ability attributes on the dependent variable: teachers’ perceived Commitment to Stay. The schools’ corporate brand personality served as the mediating variable in the model. The third hypothesis (H₃) was fully supported since divergent thinking attribute (± 95%: 0.002 to 0.019), convergent thinking (± 95%: 0.0001 to 0.015), motivation (± 95%: 0.023 to 0.106), environment (± 95%: 0.0001 to 0.015) and knowledge (± 95%: 0.002 to 0.074) attributes all excluded zero (0): an indication of significant indirect effects of the creative problem-solving ability attributes on employee commitment to stay (see Table 4 below). Specifically, the schools’ corporate brand personality is a significant mediator in headteachers’ creative problem-solving attributes relationship with teachers’ commitment to stay.

Table 4: Bayesian Analysis Results of the Standardised Indirect Effects of Creative Problem-Solving Ability Attributes on Commitment to Stay with Corporate Brand Personality as a Mediator

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>95% Lower Bound</th>
<th>95% Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divergent thinking</td>
<td>0.008</td>
<td>0.000</td>
<td>0.020</td>
</tr>
<tr>
<td>Convergent thinking</td>
<td>0.006</td>
<td>0.000</td>
<td>0.015</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.060</td>
<td>0.023</td>
<td>0.106</td>
</tr>
<tr>
<td>Environment</td>
<td>0.006</td>
<td>0.000</td>
<td>0.015</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.034</td>
<td>0.002</td>
<td>0.074</td>
</tr>
</tbody>
</table>

Source: Field Data, 2016
5. Discussion

The present study examined the predictive linkage between school leaders’ creative problem solving ability attributes, teachers’ corporate brand personality and commitment to stay (Retention) and found the overall hypothesized model, that is, the ‘Dynamic System Model of Creative Problem Solving, Brand Personality and Commitment to Stay’ to fit the observed data. The correlational results showed that the aggregated and specific creative problem-solving ability attributes were significantly related to each other. Again, except for divergent thinking, the specific and aggregated creative problem-solving ability attributes showed significantly correlation with corporate brand personality. Commitment to stay (retention) was also shown to be significantly correlated with corporate brand personality and motivation attribute one of the creative problem-solving ability attributes.

The direct predictive linkages among Headteachers’ creative problem-solving attributes, except for the motivation and knowledge path found in this study relate with and extend the empirical findings of previous studies which showed that creative problem-solving ability attributes significantly predict creative outcomes (Amabile, 1997; Cho, 2007; de Stobbeleir, Ashford and Buyens, 2011; Dul and Ceylan, 2011; Ekmekci and Tekin, 2011; Gehani, 2011; Gerhart and Fang, 2015; Hennessey and Amabile, 2010; Lin, 2010; Lin and Cho, 2011; Okpara, 2007; Paramitha and Indarti, 2013; Runco and Acar, 2012; Walter, 2012). This study also showed that creative problem-solving ability attributes of school leaders predicted corporate brand personality in support of the view that creativity is an important trait in determining brand personality (Geuens et al., 2009; Keller and Richey, 2006; Richards et al., 1998). Since the corporate brand personality is describes the personality of the corporate brand, this study’s finding adds a degree of acceptance to the existence of ‘a formal link between the success of ... schools and their corporate brand-building and management activities’ within the context of visionary (creative thinking) leadership and corporate brand-building and management (Balmer and Wang, 2016: 14).

Again the predictive linkage between corporate brand personality and teachers’ commitment to stay and work with the brand lends support to Carter’s (2011) assertion that employee brand commitment to keep on working for the brand was influence by specific dimensions of corporate brand personality dimensions. This finding elucidates the need to build the corporate brand personality of the schools through creative problem-solving which can smooth the progress of consensus building and understanding among teachers for the needed commitment (Bergstrom et al., 2002) to stay and work for the school as a brand. This study showed that although the building and management of the schools’ corporate brand should be led by the leaders of the schools employing their creative problem-solving abilities, which sides with the claims of Balmer and Wang (2016), Lin and Cho (2011) as well as Yukl (2012); the determination of the schools’ corporate brand personality should involve the staff of the school along the lines of Keller and Richey’s (2006) point of view.

The finding that the relations between the creative problem-solving ability attributes and corporate brand personality were significant except for divergent thinking supports the views of Brodin et al (2016) and Shiau (2014) who advocated the position that brand image with the key component being brand personality is influenced by creativity and innovation. The empirical finding of the present study is analogous to previous studies that linked creativity and innovation to brand issues such as (image and personality) (Sheinin et al., 2011; Jin et al., 2015; Hanaysha et al., 2014; Li et al., 2008; de Haan et al., 2015). The finding that knowledge significantly predicts corporate brand personality concurs with the position of Richards et al (1998) who are of the view that brand is essentially knowledge and over time, builds into a considerable body of knowledge, which can facilitate an institution’s competitive advantage. Again this study’s findings that school leaders’ divergent thinking attribute significantly predicts the creation of corporate brand personality through knowledge adds to the position of Lin (2010) on individuals’ knowledge in creative performance (see Lin and Cho, 2011). However, the insignificant mediating effect of knowledge on convergent thinking, motivation, and environment attributes’ relationship with corporate brand personality found in this study, although at variance with Lin (2010) as well as Lin and Cho (2011), can be explained, employing Richards et al.’s (1998) view that brand is essentially a considerable body of knowledge.

This study showed that the predictive influence of creative problem-solving ability attributes of school leaders on the teachers’ commitment to stay (Retention) is significantly mediated by the school’s corporate brand personality. This study examination of employee commitment to stay builds on Rampf and Kenning (2014) findings about employer brand attractiveness in relation to brand personality traits; and contributes to the works in the area of employee brand commitment and corporate brand personality (Carter, 2011) while integrating the creative problem solving ability attributes (Cho, 1999; 2003) of leadership. The implication of the brand – knowledge view is that the Dynamic System Model of Creative Problem Solving, Brand Personality and Commitment to Stay can be used in explaining how
accumulated brand oriented knowledge of values, words and actions ‘can guide employees in the organisation’ (Keller and Richey, 2006: 76). Further studies are needed to fully understand the mediating hypothesis pertaining to the connection between the creative problem solving ability attributes and corporate brand personality at specific dimensions and aggregated levels as well as employee outcomes.

5.1. Research Insight and Implications:

As part of the insights derived, solving school related problems to enhance commitment of teachers to stay on the job can be enhanced when teachers’ perception of the school’s corporate brand personality is positive. Building on the view of Balmer and Wang (2016) within the brand-image-personality context, this study showed that heads of pre-tertiary schools in Ghana should recognise the importance of the corporate brand personality with the understanding that it is a strategic mediator when it comes to the heads ability to creatively solve problems of the schools to facilitate teachers’ commitment to stay. It means the heads have to take responsibility to involve staff, devote time and resources to build and manage the corporate brand personality of the schools, in order to ensure their creative efforts to solve school problems are successful.

The practical implication of the present study’s findings is that headteachers and their schools must desire and apply creativity (Lin, 2010) while ensuring the schools continue to remain the main sources of innovation and creativity (Gichohi, 2014) in their approach to serving their constituencies. This will facilitate the building of the schools’ corporate brand personality and help win a niche in the educational market (Balmer and Wang, 2016; Keller and Richey, 2006) to gain competitive advantage and capture competitive opportunities (Hocine and Zhang, 2014) while serving as exemplars of ‘best practice’ in management and creative problem-solving (Balmer and Wang, 2016; Lin and Cho, 2011). This will engender teachers’ commitment to stay.

5.2. Limitations and Recommendation:

The present study’s limitation lies in the fact that all respondents were educationists, limiting the ability to generalise the results across domains. The possible instrumentation bias and narrowed scope of the questionnaires used in the study requires that future studies explore both senior management and other staff’s creative problem solving in relation to: brand identity, brand image, strategic branding and brand positioning strategies of schools, the effectiveness of school brand slogans, logos and campaigns as well as the politics of school brand decision making (Pike et al., 2010) for the creative enhancement of the schools’ competitiveness need more research attention. Moreover, as this research focuses on selected pre-tertiary schools in Ghana, future studies could focus on pre-primary schools and special schools at the pre-tertiary level, the tertiary institutions as well as other sectors of the economy.

5.3. Conclusion

In conclusion, the evidence that the Dynamic System Model of Creative Problem Solving, Brand Personality and Commitment to Stay model fit the present study’s observed data, theoretically lends support to the generalizability of Cho’s (2003) dynamic system model of creative problem solving ability to other school areas such as the ability of school leaders to creatively make the school an institution of choice for students and their teachers as well as other stakeholders. The findings are also critical for the measurement of the effectiveness of schools brand performance and staff commitment to stay over time. Clearly, and finally, the creative problem-solving ability and building of the corporate brand personality emerged as a strategy in establishing teachers’ commitment to stay.

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