



**Stimulating Employee Ambidexterity and Employee Engagement in SMEs**

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## 1. Introduction

Small and Medium-sized Enterprises (SMEs) are the backbone of modern economies. They are vital to sustained long-term economic growth (Ardic et al. 2011), and constitute a vibrant and growing sector in most advanced economies across the globe (Levy and Powell, 2005). While they play a significant role in employment generation, revenue generation, and export earnings in developing and emerging economies (Javalgi and Todd, 2011), they are often faced with limited resources which impair their access to new innovation (Verheugen, 2003). Extant studies within the management literature has suggested that employee ambidexterity and engagement are key drivers of innovation and organisational growth (Raisch et al., 2009; Lin and McDonough, 2011; Good and Michel, 2013). However, the broad consensus from empirical insights in these studies have largely been based on organisational contexts in western economies. Besides, previous studies on ambidexterity have neither suggested nor established any relationships between employee ambidexterity and employee engagement (Saks, 2006). Furthermore, only a relatively smaller number of studies have examined the organisational characteristics that enhance the innovation capabilities of SMEs, and even fewer have investigated these relationships in a developing country context. These knowledge gaps we would argue may be vital to not only explaining the high failure rates associated with SMEs, but also contributing to a more comprehensive theorisation of ambidexterity at individual-level.

To address this challenge, this study examines the organisational context that fosters engagement and ambidexterity among employees by investigating the needed organisational context. We argue that in order to survive within competitive environments, every organisation – especially SMEs - must maintain a balance between having sufficient exploitation activities to ensure its current viability, and having adequate exploration activities to ensure its future viability (c.f. Lubatkin et al., 2006; O'Reilly and Tushman, 2011). This dual focus – i.e. exploration and exploitation activities - referred to as ambidexterity, has emerged to be crucial to long-term organisational success (Raisch et al., 2009). We used data collected from 72 SMEs in Nigeria to provide a plausible context for our study, because it encapsulates the context and challenges we shed insights into. For instance, despite being the largest economy in the sub-Saharan Africa (World Bank, 2015), less than 10% of new businesses survive, thrive and grow (Aremu and Adeyemi, 2011). Moreover, SMEs in Nigeria operate in a weak institutional environment where the 'rules of the game' are not defined, but ever-changing. Hence they would particularly need exploration and exploitation activities to thrive.

We propose and test a theoretical framework hypothesising how the organisational context promotes employee engagement and employee ambidexterity. In the next section, we draw on organisational and cultural factors in prior literature and theorise their impacts on employee engagement and ambidexterity. Following, we elaborate on the research methodology guiding our study. Finally, we highlight results from our study and give theoretical and practical implications from our findings.

## 2. Literature Review

The general purpose of this study is to explore the linkages between organisational context, employee ambidexterity and employee engagement. In this section, we will review existing literature on organisational and employee ambidexterity and finally employee engagement.

### 2.1 *Organisational Ambidexterity and Firm Survival*

There is a growing body of research in literature seeking to understand how organisations achieve ambidexterity (Cao et al., 2009); within the management literature for example, it has been likened to various phenomena. For instance, O'Reilly and Tushman (2011) likened organisational ambidexterity to dynamic capability - which is defined as the ability of a firm to leverage and reconfigure its existing internal and external skills, resources and competencies, in ways that are valuable to their customers and difficult for their competitors to copy (Teece et al. 1997). The focus of dynamic capability dwells on the changing nature of the business environment, and on the appropriate reconfiguration of organisational resources towards the constantly changing business environment. As a dynamic capability, organisational ambidexterity is a complex set of routinised activities which include decentralisation, differentiation, targeted integration, and the ability of senior leadership to manage the trade-offs that characterise the simultaneous pursuit of exploration and exploitation activities.

In similar vein, firm-level absorptive capacity has been closely linked to organisational ambidexterity (see Bröring and

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3 Herzog, 2008). It has been defined as a firm's ability to be aware of the value of new, external information; assimilate  
4 it; and apply it to its commercial ends (Cohen and Levinthal, 1990). Absorptive capacity is the ability of a firm to  
5 recognise, acquire, assimilate, transform, and exploit knowledge from external sources through exploratory;  
6 transformative; and exploitative learning (Lane et al., 2006). While exploratory learning focuses on the recognition  
7 and understanding of external valuable knowledge, transformative learning focuses on the assimilation of the newly  
8 found knowledge, and exploitative learning focuses on using the assimilated knowledge to create new knowledge and  
9 marketable outputs (Lane et al., 2006). Some of the identified crucial factors that have the potential to enhance a  
10 firm's absorptive capacity include organisational structures and organisational culture according to Harrington and  
11 Guimaraes, (2005). It follows that organisational culture and structure have significant impacts on the absorptive  
12 capacity and innovation capacity of firms, and consequently, its overall performance.  
13

14  
15 Despite these affiliations, one major agreement in extant research is the importance of organisational ambidexterity to  
16 firm survival (Venkatraman et al., 2007). According to Lubatkin et al. (2006), firms must simultaneously exploit  
17 current competitive advantages, and explore new domains with equal dexterity to ensure future survival. For firms to  
18 remain competitive and adaptive to continuous change in the business environment, they must exploit existing  
19 competencies and explore new ones (Floyd and Lane, 2000). He and Wong (2004) defined organisational  
20 ambidexterity as the capability of an organisation to operate successfully in both mature markets and emerging  
21 markets. As a result, organisational ambidexterity can be viewed as a firm-level organisational competency required  
22 for the successful exploitation and exploration of business opportunities. Gibson and Birkinshaw (2004) argue that  
23 ambidexterity promotes organisation survival. In their work, the terms "alignment" and "adaptability" correspond to  
24 exploitation and exploration activities respectively. According to them, alignment activities are tailored toward  
25 improving business performance in the short term, while adaptability activities are geared toward improving business  
26 performance in the long term. Research on the ambidexterity of shop floor employees alongside the organisational  
27 context is likely to give a better understanding of how employees' individual ambidexterity contributes to the overall  
28 organisational ambidexterity. In the next section, we review the literature on employee ambidexterity.  
29

### 30 31 *2.2 Employee Ambidexterity*

32 Employee ambidexterity has been defined as individuals' balanced pursuit of exploitative and explorative activities  
33 (Kobarg, et al., 2015). While exploitative activities focus on existing opportunities, exploring activities focus on new  
34 opportunities. However, findings from literature show that little is known about ambidexterity at the individual-level  
35 (Bonesso, et al., 2014). Also research on ambidexterity at the individual level of analysis is limited (Raisch and  
36 Birkinshaw, 2008). There is a lack of understanding of how individual ambidexterity at the lower-levels of the  
37 organisation affects the overall ambidexterity of the organisation. Theoretical and empirical investigation on  
38 ambidexterity with respect to the composition of the shop floor employees is yet to receive the needed attention.  
39

40 According to Gibson and Birkinshaw (2004), every employee in a company has the ability to concurrently deliver  
41 value to the existing markets and to also react appropriately to the changes in the environment. They posit further  
42 that every individual in a unit can concurrently deliver value to existing markets in his or her functional area. Raisch et  
43 al. (2009) posit further that, in most cases, an organisation's ambidexterity is more likely to be a function of  
44 interrelated individual and organisational factors than the summation of the individual's activities and ambidexterity.  
45 Based on the position of Raisch et al. (2009), the ability of the individuals employed by an organisation will have an  
46 aggregate effect on the organisation's ambidexterity. This implies that employee ambidexterity is essential to long  
47 term organisational survival and performance and as a result, we would expect employee ambidexterity to positively  
48 correlate to organisational-level ambidexterity. In order to survive and adapt to changes in the business environment,  
49 organisations through their employees must therefore seek to simultaneously exploit existing competitive advantage  
50 and explore new ones with equal dexterity (Lubatkin et al., 2006; Floyd and Lane, 2000).  
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52  
53 Despite its importance however, the call for empirical studies into ambidexterity at an individual level of analysis  
54 (Raisch and Birkinshaw, 2008) has been answered mainly by O'Reilly and Tushman (2011), Lin and McDonough  
55 (2011) and Mom et al. (2009) who all focus on firm leadership and top management composition. The theoretical and  
56 empirical investigation on organisational ambidexterity with respect to the composition of the shop floor employees is  
57 yet to receive the needed attention, and is the focus of this study. In the next section, we discuss the final variable in  
58 our model – employee engagement.  
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### 2.3 Employee Engagement

Sharma and Kaur (2014) have defined employee engagement as the “*extent to which an employee feels a sense of psychological investment in his/her work, so that he/she is behaviourally (social) and intellectually focused on organisational goals*” (p. 45). This psychological state according to Hewitt (2014) can potentially lead to behavioural outcomes that facilitate improved organisational performance (p. 11). Besides, several studies in extant literature have investigated the impact employee engagement has on organisational performance. For instance, Shantz et al. (2013) portrayed how employee engagement plays a mediating role to explain how job designs influence eventual performance on the job. Findings portrayed how ‘engaged employees’ exhibit higher levels of performance, and how organisations should orchestrate jobs that offer higher levels of autonomy, task variety and significance. Also, a Gallup study in 2006 that investigated 23,910 business units, observed that those with higher levels of employee engagement had higher levels of productivity and profitability (Wagner and Harter, 2006). These studies exemplify correlational studies in literature that unilaterally link increased employee engagement and organisational performance. Despite these correlational linkages, some studies have begun to highlight paucity of studies that enhance our understanding on the causal links between employee engagement and other organisational variables. For example, Gibson and Birkinshaw (2004) have portrayed how ambidexterity within a business unit may influence overall performance within the organisation. According to the authors, investigating ambidexterity at group and individual level may well shed useful insights to help organisations navigate the various dynamic business and economic environments we witness today.

In order to capture employee ambidexterity, we propose two dimensions. First, Employee Passive Ambidexterity (EPA), to assess the propensity of employees to exploit existing opportunities and explore new opportunities simply by following organisational procedures. Second, a measure of employees’ tendency to seek novel means to engage in exploitation and explorative activities outside organisational rules and procedures termed Employee Active Ambidexterity (EAA). Our proposal in this study is that employee engagement plays a significant role in informing our understanding of employee ambidexterity – which in turn we propose is key to organisational survival. To date, very few studies have investigated these linkages and even fewer have highlighted how these may apply to developing economies. In the next section, we introduce the hypotheses and model that underpins our study.

### 3. Hypotheses development

Our model focuses on three main constructs: the organisational context, employee ambidexterity and employee engagement. The organisational context provides the underlying platform for individuals within an organisation to develop and carry out their activities (Lin and McDonough, 2011). We draw on Cameron and Quinn’s (2006) and Su et al (2011) to investigate organisational context as a measure of an organisation’s organic structure, knowledge sharing culture, clan culture, and adhocracy culture. These constructs have been identified in management literature to influence organisational innovation and ambidexterity (Suppiah et al. 2011). In this section, we hypothesise the direct effects that exist between all three constructs.

#### 3.1. Organic structure

The organic structure within an organisation leads to more participative decision making processes and more mutual conflict resolution processes than a mechanistic structure, thus increasing employee autonomy, lowering centralisation of authority, and reducing rules and regulations (Olson et al. 1995). It facilitates engagement by providing employees with the flexibility to respond to a fast-changing environment. In the same vein, ambidextrous employees are able to perform contradictory activities such as non-routine tasks in their pursuit of multiple goals (Mom et al. 2009). Burns and Stalker (1961) found that an organic structure tends to be suitable for changing environmental conditions because of the need for emergent and innovative responses. For employees, it is also important to note that an organic structure will increase flexibility, generation and exploration of knowledge, creativity, experimentation, and facilitate diverse perceptions to problems and possible solutions (Mintzberg, 1979). Thus, the following hypotheses are articulated:

H1a. The organic structure of an organisation has a positive impact on the passive ambidexterity of employees

H1b. The organic structure of an organisation has a positive impact on the active ambidexterity of employees

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3 According to Pashtenko et al. (2000), the current highly competitive business environment requires flexible  
4 organisational forms that support both exploration and exploitation of new opportunities. In the absence of this  
5 flexibility, organisations risk inducing increased workload and exhaustion among their employees (Saks, 2006).  
6 Richman (2006) portrays how employees with higher level of engagement benefit from workplace flexibility - which  
7 is a characteristic of organic structure, and which in turn influences employee engagement and business outcomes.  
8 Hence, we also propose that:  
9

10 H1c. The organic structure of an organisation has a positive impact on employee engagement  
11

### 12 3.2. Knowledge sharing culture

13 A knowledge sharing culture promotes information sharing and creativity among the employees and also encourages  
14 organisational ambidexterity (Lin and McDonough, 2011). According to O'Reilly et al. (1991), a culture that  
15 promotes knowledge sharing among the employees is likely to enhance the exploitation of existing competences and  
16 the exploration of new capabilities. It thrives among the employees who show mutual respect, openness and trust to  
17 one another leading to increased levels of engagement among employees within the organisation. In an empirical  
18 examination of the relationships between trust, the presence of the knowledge sharing culture and firm performance,  
19 Cheng et al. (2008) found that trust positively influences knowledge sharing, while knowledge sharing in turn  
20 positively relates to firm performance. Furthermore, Lin and McDonough (2011) found that a knowledge-sharing  
21 culture created by strategic leadership can help organisations to improve their innovation ambidexterity. Following  
22 from these aforementioned studies, we would argue that a knowledge sharing culture will positively influence  
23 ambidexterity by encouraging explorative and exploitative activities among individuals in an organisation. We also  
24 propose that a knowledge sharing culture will promote employee engagement, as articulated below in the hypotheses  
25 below:  
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27 H2a. Knowledge sharing culture has a positive impact on the passive ambidexterity of employees  
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29 H2b. Knowledge sharing culture has a positive impact on the active ambidexterity of employees  
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31 H2c. Knowledge sharing culture has a positive impact on employee engagement  
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### 33 3.3. Clan culture

34 Clan culture refers to the degree to which an organisation's underlying values and assumptions emphasize collective  
35 goals, and participation and teamwork (Cameron and Quinn, 1999). In their work, the authors demonstrate how clan  
36 culture is similar to a family-type orientation with a focus on teamwork, employee involvement, empowerment; and  
37 evidence of corporate commitment to employees. Some features of this culture include minimal management levels,  
38 higher levels of autonomy at work, and job rotation to mention a few. Within such cultures, "*managers need to*  
39 *promote employee dialogue, participation, and training to improve cohesive relationships, individual commitment*  
40 *and contribution*" (Shih and Huang 2010, p. 273). With regards to its impacts on individual and organisational  
41 outcomes, the role clan culture plays appear to be mixed as observed in previous studies. For example, characterised  
42 by a friendly working environment, it is proposed that a clan culture promotes employee ambidexterity and employee  
43 engagement (Cameron and Quinn, 1999), while Matzler et al. (2013) show how it negatively influences employees'  
44 exploration activities. Some studies have suggested that while clan culture stresses flexibility and collective  
45 participation, it is internally focused on individuals/group shared values rather than shared dispositions at the  
46 organisational level. These results show to date, there appears to be a lack of clarity and empirical insights on how  
47 clan culture influences employee ambidexterity. Following from Cameron and Quinn's study, we would argue that  
48 employees play a critical role in improving organisational outcomes. Thus, promoting clan culture among employees  
49 should lead to higher levels of engagement and ambidexterity. Therefore, we hypothesise that:  
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52 H3a. Clan culture has a positive impact on the passive ambidexterity of employees  
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54 H3b. Clan culture has a positive impact on the active ambidexterity of employees  
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56 H3c. Clan culture has a positive impact on employee engagement  
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### 58 3.4 Adhocracy culture

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3 An adhocracy culture is shown to be the most responsive culture to change because it is characterised by rapid  
4 reconfiguration to suit new circumstances (Cameron and Quinn, 2006). This culture encourages adaptability,  
5 flexibility and creativity in uncertain situations. It takes advantage of new opportunities as fast as possible, which often  
6 leads to production of innovative products and services. However, Dwyer et al. (2003) suggests the adhocracy  
7 culture's "*results-oriented external emphasis and relatively lower level of employee-focused orientation may tend to*  
8 *overshadow its informal processes in its interaction with gender diversity*" (p. 1017). In terms of its impact on  
9 ambidexterity, Cameron and Quinn (2006) posit that the adhocracy culture reflects values, styles, language,  
10 procedures and routines that support creativity and innovation. Drawing from empirical evidence, Naranjo-Valencia et  
11 al. (2011) has argued that adhocracy culture fosters innovation strategies. SME operate under tight time and cost  
12 constrains and thus need to be active and risk-taking to improve survival. We expect adhocracy culture to increase  
13 employees' ambidexterity and engagement in such organisations. This leads to the following hypotheses.

14  
15 H4a. Adhocracy culture has a positive impact on the passive ambidexterity of employees

16  
17 H4b. Adhocracy culture has a positive impact on the active ambidexterity of employees

18  
19 H4c. Adhocracy culture has a positive impact on employee engagement

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21 Finally, we seek to hypothesise the link between employee engagement and employee ambidexterity. Employee  
22 engagement as the "*extent to which an employee feels a sense of psychological investment in his/her work, so that*  
23 *he/she is behaviourally (social) and intellectually focused on organisational goals*" (Sharma and Kaur 2014, p. 45).  
24 Its practical implications as well as its antecedents have been well established and discussed in the management  
25 literature (e.g. Saks, 2006). Organisations strive to achieve higher levels of employee engagement in order to increase  
26 efficiency (Boer and During, 2001). As organisations are becoming more multinational in their operations, the ability  
27 to achieve higher levels of employee engagement among their employees (who increasingly are from various  
28 multicultural backgrounds,) has emerged as a critical organisational issue. Besides, employee ambidexterity and its  
29 influence on organisational ambidexterity have emerged crucial to the long-term success of organisations (Good and  
30 Michel, 2013). The ability of employees to simultaneously pursue both explorative and exploitative activities is  
31 hindered by the rigid flow of resources, rules, and regulations, which in turn hinders the fulfilment organisational  
32 objectives (Su et al. 2011). Rather, employees within these organisations should be encouraged to actively innovate  
33 with organisational resources, thereby increasing knowledge-flow, performance, benefits in general. Such  
34 environments bolster employee engagement. A review of extant literature in the management stream shows that  
35 empirical evidence investigating the causal link between employee engagement and employee ambidexterity is quite  
36 sparse. Building from our previous arguments in this section, we would expect employee engagement to have a  
37 positive influence on employee ambidexterity. Thus, we hypothesis that:

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40 H5a. Employee engagement has a positive impact on employee passive ambidexterity

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42 H5b. Employee engagement has a positive impact on employee active ambidexterity

43  
44 The research model of our study is graphically displayed in Figure I.

45  
46 Figure I: Research model

#### 47 4. Research Methodology

48 The current study uses data from SMEs in the Nigerian manufacturing and services industry. Since the  
49 researchers did not have access to an accurate population listing of Nigerian SMEs due to data availability  
50 constraints, snowball sampling was adopted for the analytical phase. According to Fink (2003) and Robson  
51 (2002), the snowball sampling technique is not only for hidden populations, it is very useful when it is difficult  
52 or impractical to obtain a list of names for sampling, or to identify all the members of the population. The use of  
53 this technique follows existing research studies on manufacturing and service organisations (c.f. O'Cass and Sok,  
54 2013; Tang and Tang, 2012).

##### 55 4.1 Sample and Data Collection

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3 We proceeded to validate our survey instrument by running a pilot test prior to data collection. The participants  
4 were asked to indicate a response that best represents the extent to which they agree to each of the items. All the  
5 items were measured on a five-point Likert scale. Preliminary analysis showed that there was no significant  
6 difference between early and late respondents. Following the exploratory factor analysis, structural equation  
7 modelling was carried out using the Analysis of Moment Structures (AMOS) software to model the survey  
8 items of each of the research constructs. In order to involve a large sample of individuals and also to exploit the  
9 power of Structural Equation Modelling in the data analysis, a quantitative survey was adopted. In order to  
10 increase the response rate, we used both online and paper-based survey for our study.  
11

12 We adopted the time trend method via extrapolation to eliminate non-response bias (See Armstrong and Overton,  
13 1977). According to the authors, the time trend method makes the implicit assumption that late respondents are  
14 more like non-respondents. It compares the characteristics of responses coming from the early and late  
15 respondents. Factors relating to non-response bias are assumed to be eliminated if the characteristics of the  
16 research data from the early respondents do not differ from that of the late respondents. Thus, this eliminates  
17 factors relating to non-response bias in the survey data. It also implies that the information obtainable from the  
18 companies that participated in the research can be generalised to the initial planned sample for the study. The  
19 time-trend method was adopted in this study to analyse non-response bias. We also screened our data prior to  
20 our analysis. During this process, we encountered a few cases of missing data. According to Olinsky et al.  
21 (2003), missing data is also a common problem with research datasets. We treated these cases using the  
22 imputation method as recommended by Gold and Bentler (2000). This approach involved substituting missing  
23 observations on a particular variable with the sample mean for that variable. The final sample size included 398  
24 shop-floor employees; see table I for respondents' demographic information.  
25

26  
27 Table I: Please insert here  
28

#### 29 4.2 Constructs and Measurements

30 All research constructs included in this study had multi-item scales derived from relevant literature. This will be  
31 highlighted in this section. Each item for our construct employed a 5-point Likert scale (1 = strongly disagree, 5  
32 = strongly agree) except for the employee engagement measure. The organisational context was assessed using  
33 four constructs identified in literature. Firstly, we adapted the survey measure of Knowledge Sharing Culture  
34 from O'Reilly et al. (1991) and Lin and McDonough (2011). This measure consists of four items asking  
35 participants to rate their extent of agreement with each of the items. Similarly, clan and adhocracy cultures are  
36 also independent variables adapted from Cameron and Quinn (2006). The participants were asked to indicate a  
37 response that best indicates the extent to which they agree to the items. Clan and adhocracy cultures consist of  
38 five and four items respectively. Drawing on previous research (i.e. Su et al. 2011; Slevin and Covin, 1997; and  
39 Olson et al., 1995), organic structure was measured using five items.  
40

41 Being a relatively under-explored area, we developed measures to assess employee ambidexterity. We adapted  
42 items from Axtell et al (2000) which measures employees' *suggestion-implementation* orientation to assess  
43 EPA. The suggestion orientation measures the extent to which employees proposed changes to various aspects  
44 within the organisation, while the implementation measures assess the extent to which those proposed changes  
45 were implemented. Employee Personal Development Strategy (EPDS) and its organisational relevance  
46 orientations for the shop floor employees (to assess EAA) were measured using four main questions. We sought  
47 items that are relevant based on these three dimensions used to conceptualise employee engagement (i.e. social,  
48 behavioural and emotional items). The survey items for Employee Engagement level were adapted from Vance  
49 (2006) and Lockwood (2007). According to Lockwood (2007), these three factors allow business leaders  
50 identify employees' state of mind and how it may foster motivation, productivity and retention within  
51 organisational settings. Employees were asked to indicate the response that best represents their extent of  
52 agreement, or disagreement, for each of the items developed on a five-point Likert scale. Table II summarizes  
53 both measures and constructs.  
54

55 Table II: Please insert here  
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## 57 5. Data Analysis 58 59 60

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3 In this research, we used SPSS and IBM AMOS v. 21 to assess the reliability and validity of our measures, and  
4 to analyse the structural relationship of the model.  
5

### 6 *5.1 Reliability and Validity*

7 The psychometric properties of the measurement model should be evaluated based on an examination of its  
8 internal consistency, discriminant validity and convergent validity (Chin et al. 1997). We estimated the  
9 Cronbach alphas for each of our construct to assess internal reliability. According to Hair et al. (2010),  
10 acceptable Cronbach alpha should exceed a benchmark of 0.7. As shown in tables III and IV, the composite  
11 reliability (CR) and Cronbach's alpha of each construct are all greater than 0.7; factor loadings are all greater  
12 than 0.5 (see tables III and IV). The Cronbach alphas for all our constructs ranged from 0.729 – 0.891, while  
13 composite reliability of all constructs were also higher than the recommended cut-off.  
14

15 Table III: Please insert here

16 Table IV: Please insert here

17  
18 The results indicate that our measurement satisfies the acceptable level of measurement reliability.  
19 Discriminant validity was then verified by assessing the square root of AVE for each construct (Fornell and  
20 Larcker, 1981). This has to be greater than the squared correlation estimates between the construct and other  
21 constructs (Hair et al. 2010). Table IV shows each constructs' AVE was greater than the squared correlations  
22 estimate for other constructs except for Employee engagement (EENG) which had a lower AVE value  
23 compared with CLANC. The implication of this result demonstrates a high correlation between employee  
24 engagement (EENG) and CLANC. This invariably chimes with findings from one of our hypotheses where  
25 CLANC was found to be significantly related to EENG (H3c).  
26  
27

28 As a first step, the measurement model was estimated using Confirmatory Factor Analysis (CFA) using AMOS  
29 and maximum likelihood estimations to first analyse the measurement model by assessing the underlying  
30 constructs for reliability and validity, and investigating the model fit. According to Hair et al. (2010), maximum  
31 likelihood provides fairly robust estimations even when the assumption of normality of the data is not met. The  
32 fit indices confirmed a sufficiently good model fit as the overall model fit was assessed in terms of four common  
33 measures: the comparative fit index (CFI), goodness-of-fit index (GFI), and root mean square error of  
34 approximation (RMSEA). The CMIN/Df value was found to be 2.043; the comparative fit index (CFI) is 0.946;  
35 adjusted goodness of fit index (GFI) = 0.952, and root mean square error of approximation (RMSEA) = 0.073,  
36 which is below the cut-off level of 0.08. These results indicate that the measurement model fits the observed co-  
37 variances well and they are within acceptable limits (Hair et al. 2010). Hence, the structural model exhibited a  
38 satisfactory fit with the data collected. This section reported on the effectiveness of the measurement model used  
39 to analyse our data.  
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41

42 Table V: Please insert here

43  
44 In the next section, we discuss the structural model and elaborate on the hypothesised associations in our  
45 research model.  
46

### 47 *5.2 Structural model*

48 The research model was tested using Structural Equation Modelling (SEM) facilitated by using AMOS v.21.  
49 The structural model was also employed to examine the associations hypothesised in our research model. The  
50 standardized path coefficients for the research model are presented in Fig. II All hypothesised paths were  
51 significant in the expected directions.  
52

53 Figure II. Please insert here

54  
55 The results of the structural modelling and relationships confirm each of the research hypotheses. Validation of  
56 each of the hypotheses reveals the favourable organisational context for increasing the level of Employee  
57 Ambidexterity and engagement. In figure I, we show the structural model of hypothesised relationships and the  
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3 standardised parameter estimates between the constructs for hypotheses H1 to H5. The GOF indices of the  
4 model also satisfy the requirements for good model fit. It was found that Organic Structure positively relates to  
5 EPA (H1a, 0.295), EAA (H1b, 0.330) and to employee engagement (H1c, 0.732). Thus, a more fluid set of  
6 arrangements, which are suitable to conditions of rapid change and innovation (Lam, 2011), encourages  
7 Employee Engagement and makes shop-floor employees ambidextrous. This implies that employees in a  
8 flexible and adaptive organisation will tend to show high levels of engagement and ambidexterity. Also, a  
9 knowledge sharing culture promotes employees' passive ambidexterity (H2a, 0.249) and active ambidexterity  
10 (H2b, 0.270).  
11

12 Our findings also reveal that knowledge sharing culture also facilitates increased level of engagement among  
13 employees (H2c, 0.816). According to O'Reilly et al. (1991), a culture that promotes knowledge sharing among  
14 the employees is likely to enhance the exploitation of existing competences and the exploration of new  
15 capabilities. The current study empirically confirms the validation of this proposition. A clan culture is also  
16 found to be positively related to employees' passive ambidexterity (H3a, 0.319), employee's active  
17 ambidexterity (H3b, 0.387), and employee engagement (H3c, 0.931). Teamwork, employee empowerment and  
18 corporate commitment to employees are common features in an organisation that shows evidence of a clan  
19 culture. This study reveals that such features promote employees' level of engagement and make them  
20 ambidextrous. Furthermore, findings also reveal that an adhocracy culture is beneficial to employee  
21 ambidexterity - promoting passive ambidexterity (H4a, 0.288), active ambidexterity (H4b, 0.340) and employee  
22 engagement (H4c, 0.859). An organisational culture that is responsive to change positively relates to Employee  
23 Ambidexterity and Employee Engagement. Such a culture is characterised by creativity, innovation and by  
24 absence of an organisational chart (Cameron and Quinn, 2006). A positive relationship was also validated  
25 between employee engagement and employees' passive ambidexterity (H5a, 0.449), while at the same time  
26 employee engagement positively influenced employees' active ambidexterity (H5b, 0.478). The effect of each of  
27 these organisation-context constructs is more pronounced on employee engagement than on employee  
28 ambidexterity and the data supports all the hypotheses. The model with its path estimates is available in Figure  
29 II.  
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## 32 6. Discussion and Conclusion

### 33 6.1 Theoretical contribution

34  
35 In this study, we sought to investigate how SMEs can facilitate increased employee ambidexterity and  
36 engagement. We use on organic structure and culture-related factors in previous literature to hypothesise the  
37 links to both employee engagement and employee ambidexterity. Our findings suggest that employees' level of  
38 engagement increases when businesses promote an organisational context that decentralises decision making  
39 that promotes the delegation of authority, reduced emphasis on formal rules and procedures; lateral interactions  
40 among employees; and team work to mention a few. Relating these findings to the grounded theory of employee  
41 engagement by Kahn (1990), work contexts that are psychologically safe for the employees make the employees  
42 psychologically available for their work activities (Kahn, 1990; May et al, 2004; Keating and Heslin, 2015).  
43 These work contexts identify 'psychological safety and availability' as two key prerequisites to employee  
44 engagement. These work contexts make the employees to "feel worthwhile, useful, and valuable" (Keating and  
45 Heslin, 2015, p. 330). Most importantly, these feelings often result in creativity and productivity (Grant, 2007;  
46 Keating and Heslin, 2015).  
47

48 According to Lam (2011) and Su et al. (2011), employee commitment to organic organisations goes beyond any  
49 technical definition because there is no emphasis on formal rules and procedures. This is well aligned with the  
50 concept of psychological safety (Kahn, 1990) where employees can make decisions on their work activities due  
51 to decentralised decision making process without fear of negative consequences to their career. Psychological  
52 safety of employees also emanates from trusting relationship with their managers (Keating and Heslin, 2015).  
53 This is one of the key features of clan culture environment where a friendly working environment is evident  
54 (Cameron and Quinn, 2006). Also, the concept of psychological safety supports the employees to safely express  
55 themselves, knowing fully well that failed initiatives are opportunities for learning rather than as pitfalls for  
56 receiving punitive measures (Kahn, 1990; Keating and Heslin, 2015). This thought process is only possible in a  
57 responsive workplace culture such as adhocracy culture that encourages adaptability, flexibility and creativity in  
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3 uncertainty situations. Similarly, psychological availability of employees is only possible when the employees  
4 are not denied the required physical and emotional resources to successfully carry out their work activities  
5 (Kahn, 1990) and this can only be achieved in organisations that support knowledge sharing culture.  
6

7 Findings from this study show that the elements of the investigated organisational context (knowledge sharing,  
8 adhocracy and clan culture and organic structure) will enhance employees' ability to concurrently contribute to  
9 the current and future competitive advantage of their organisations. This will consequently enable them to  
10 search for, and find, better ways of carrying out their individual roles. These findings agree with the position of  
11 Cameron and Quinn (2006) on adhocracy and clan culture. Adhocracy culture supports rapid reconfiguration to  
12 suit new circumstances and takes advantage of new opportunities as fast as possible, while clan culture  
13 encourages employee ownership. Also according to Lin and McDonough (2011), to concurrently achieve  
14 explorative and exploitative activities within a single business unit, an organisation needs to create a culture that  
15 encourages learning and knowledge sharing. This type of culture empowers the members of the organisation to  
16 both exploit existing competencies and explore new capabilities (Lin and McDonough, 2011). Findings from  
17 this study also agrees with the proposition of O'Reilly et al. (1991) on how a culture that promotes knowledge  
18 sharing among the employees will enhance the exploitation of existing competences and the exploration of new  
19 capabilities. Openness, mutual respect and trust encourage ideas-sharing among the employees (Cheng et al.  
20 2008; O'Reilly et al., 1991). This implies that a knowledge-sharing culture thrives among the employees who  
21 show mutual respect, openness and trust to one another. This in turn positively relates to employee  
22 ambidexterity and employee engagement.  
23

24  
25 When knowledge sharing is encouraged, employees tend to take innovation initiatives, diverse levels of  
26 creativity are evident among the employees and this, in turn, encourages exploitative and explorative activities  
27 among them (Damanpour, 1991; Menzel et al., 2008). The ability of every individual employee to pursue  
28 exploration of new product markets while exploiting current product markets is crucial to the long term survival  
29 of the organisation. Exploitative orientations of the employees transform knowledge into commercial ends. The  
30 absence of exploitative effort will adversely affect the current organisational performance. Moreover, when the  
31 explorative orientations of the employees are missing, this will adversely affect the future organisational  
32 performance and its ability for sustainable growth. Meeting the current needs of existing customers (short term  
33 organisational performance) requires more of the exploitative than it does the explorative orientation of the  
34 employees, while meeting the future needs of the customers (long term organisational performance) requires  
35 more of the employees' explorative orientation than it does the exploitative activities.  
36

37 Following from the above discussion, our study is the first that has offered empirical insights into the linkages  
38 between the organisational context and employee engagement for shop floor employees. We have also  
39 confirmed the significance of employee engagement link to ambidexterity. Identifying this important  
40 organisational context for employee ambidexterity for the shop-floor staff in SMEs will aid the development of  
41 the theory of ambidexterity. Also, there have been recent calls to incorporate the African context into  
42 management research (Zoogah et al. 2015). Our study responds to this call by using data from 72 SMEs to  
43 investigate the organisational context that improves employee engagement and ambidexterity.  
44

#### 45 *6.2 Practical Implications*

46 Due to their limited resources, it is important for small organisations to start looking inward and focusing on  
47 maximising their internal capabilities towards their continuous survival. The ability of an organisation to exploit  
48 its current opportunities by focusing on current competitive advantage while at the same time, exploring new  
49 opportunities for future competitive advantage, helps firms to remain competitive and adaptive to continuous  
50 change in the business environment (O'Reilly and Tushman, 2011). This study has identified a favourable  
51 organisational context for employee ambidexterity and Employee Engagement. Employee Ambidexterity and  
52 Employee Engagement are a measure of individual contribution to the overall organisational objectives. Thus,  
53 understanding the appropriate organisational context for these employee individual capabilities will promote  
54 organisational growth and survival. Organisations increase in their potential for growth and continuous survival  
55 when the lower level employees are encouraged to introduce new changes to exploit their current competitive  
56 advantage, and concurrently put a system in place to support the exploration of new opportunities for future  
57 competitive advantage. The current study will promote viable Small and Medium-sized manufacturing and  
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service organisations needed to offset the prevalent job losses in the public sector, per se, and in Nigerian industry in particular.

Various austerity and economic scenarios across the globe are indicators that governments in these countries do not have enough resources to meet their own obligations. It is therefore important for small organisations to start looking inward and focus on maximising their internal capabilities towards their continuous survival. The ability of an organisation to exploit its current opportunities by focusing on current competitive advantage and to explore new opportunities for future competitive advantage has been noted as the necessary attribute for firms to remain competitive and adaptive to continuous change in the business environment (O'Reilly and Tushman, 2011). Also, the ambidextrous orientations of individual employees have been shown to have an aggregate effect on the organisational ambidexterity (Raisch et al., 2009). We believe our study has provided insight of the organisational context that facilitates employee ambidexterity within SMEs. One major limitation of this study comes from the data. Although decision-makers' characteristics are usually permanent and do not change in the short run, it is better to collect time-series data to further test causal relationships investigated in our study. In addition, this study focusses only on SMEs in Nigeria. This inhibits us from drawing broader conclusions, and generalizing our findings to other countries. We hope we have through this study opened up new lines of inquiry into the theory of organisational ambidexterity.

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**Table I.** Respondent characteristics

Respondent characteristics	Frequency	Percent
<i>Sex</i>		
Male	271	68.1
Female	127	31.9
<i>Age</i>		
< 20yrs	37	9.3
21 – 30yrs	216	54.3
31 – 40yrs	110	27.6
41 – 50yrs	30	7.5
> 50yrs	5	1.3
<i>Work experience with current organisation</i>		
0 – 1yr	147	36.9
2 – 5yrs	198	49.7
6 – 10yrs	35	8.8
11 – 15yrs	14	3.5
> 16yrs	4	1.0
<i>Industry type</i>		
Manufacturing	228	57.3
Service	170	42.7
<b>Total respondents = 398</b>		

**Table II.** Constructs and Item measures

Source	Scale
Vance (2006), Lockwood, (2007)	<i>Employee Engagement</i>
	I am personally proud of my company
	I am satisfied with every activity that relates to my job
	I have the opportunity to perform well at my work
	I do not always receive praise and positive feedback for my contributions
	I do not have enough personal support from my supervisor
	I understand the links between my job and the company's goals
	My prospect for future growth with this company is high
O'Reilly et al. (1991)	<i>Knowledge Sharing Culture</i>
	Knowledge is widely shared in this company
	This company emphasises openness among the employees
	Mutual trust is very important in this company
	Respect among the employees is very important in this company
Cameron and Quinn (2006)	<i>Clan Culture</i>
	My company is like an extended family where I feel free to discuss my personal issues
	I see my leader as a mentor
	The company encourages the employees to work as a team
	Group loyalty holds this company together
	There is a strong concern for employee growth and development in this company
Cameron and Quinn (2006)	<i>Adhocracy Culture</i>
	The company is a very creative place to work
	The leadership in this company encourages learning new things
	Commitment to creativity holds this company together
	Emphasis is on producing unique and new products
Su et al. (2011); Martínez-León and Martínez-García, (2011); Slevin and Covin, (1997); Olson et al., (1995)	<i>Organic Structure</i>
	Encourages open channels of communication between the staff and the management
	Promotes information sharing among the employees
	Allows me to apply my initiatives as circumstances demand
	Encourages making the best decisions even if it requires bypassing formal rules temporarily
	Encourages employee participation in the decision making process
Axtell et al. (2000)	<i>Employee Passive Ambidexterity (Suggestion-Implementation Orientation)</i>
	New working methods or techniques (suggested within the last one year)
	New products or product improvements (suggested within the last one year)

	New methods to achieve work targets (suggested within the last one year)
	New targets or objectives (implemented within the last one year)
	New methods to achieve work targets (implemented within the last one year)
	New information to any aspect of your work (implemented within the last one year)
	<i>Employee Active Ambidexterity (Employee Personal Development Strategy-its Organisational Relevance Orientation)</i>
	Personally searched for new and better ways of doing job within the last one year.
	Undertook activities that require learning new skills or gain knowledge within the last one year.
	Identified way(s) to do your work better within the last one year.
	New and better ways researched by the employee is of benefit to the company.
	Activities engaged in by the employees that led to changes in the way they work benefited the company
	Ways to do work better identified by the employees have benefited the company.

Management Decision

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**Table IV.** Comparing the AVE with the Square of the Correlation Estimates for the Constructs

	Composite Reliability	AVE	ORGS	CLANC	ADHC	KSCC	EENG	EPA	EAA
ORGS	0.9666	<b>0.8571</b>	1						
CLANC	0.9726	<b>0.8788</b>	.5550	1					
ADHC	0.9708	<b>0.8926</b>	.5550	0.7850	1				
KSCC	0.9722	<b>0.8977</b>	.6320	0.6856	0.7674	1			
EENG	0.9708	<b>0.8505</b>	.5358	0.8668	0.7379	0.6659	1		
EPA	0.9886	<b>0.9357</b>	.0870	0.1018	0.0829	0.0620	0.2016	1	
EAA	0.9837	<b>0.9098</b>	.1089	0.1498	0.1156	0.0729	0.22845	.3352	1

**Table V.** Goodness-of-fit model indices

CMIN/Df	CFI	GFI	AGFI	TLI	RMSEA	PCLOSE
2.043	0.955	0.952	0.833	0.911	0.051	0.309

Goodness-of-fit Indices: GFI = .952 (>. 900); TLI = .921 (>. 900); CFI = .946 (>. 900); RMSEA = .073 (< .08)

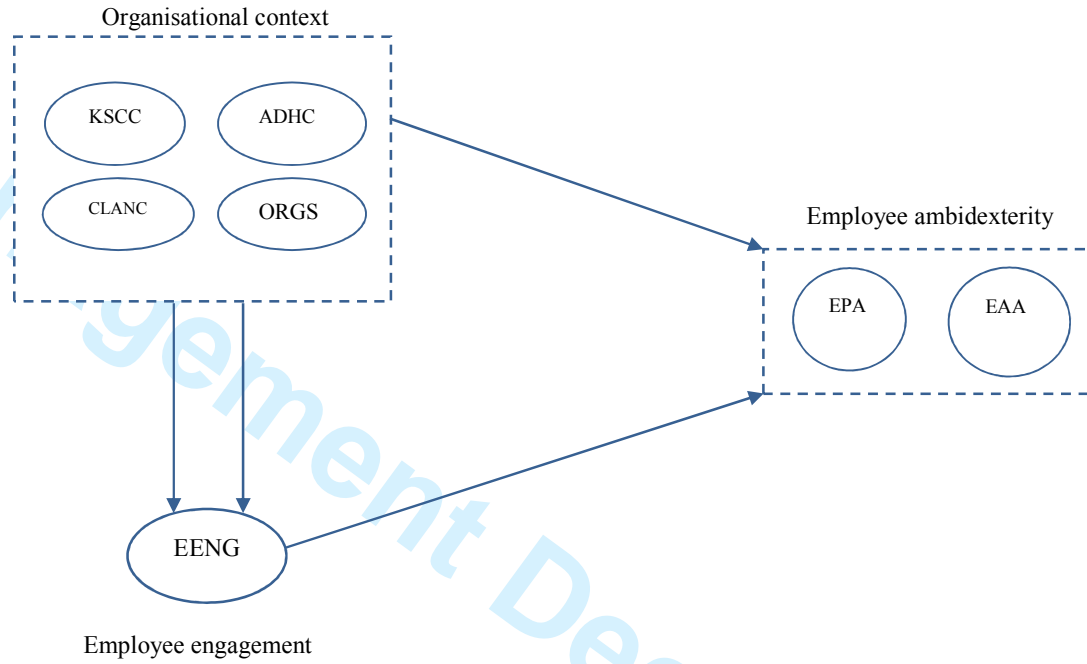


Figure I: Research model

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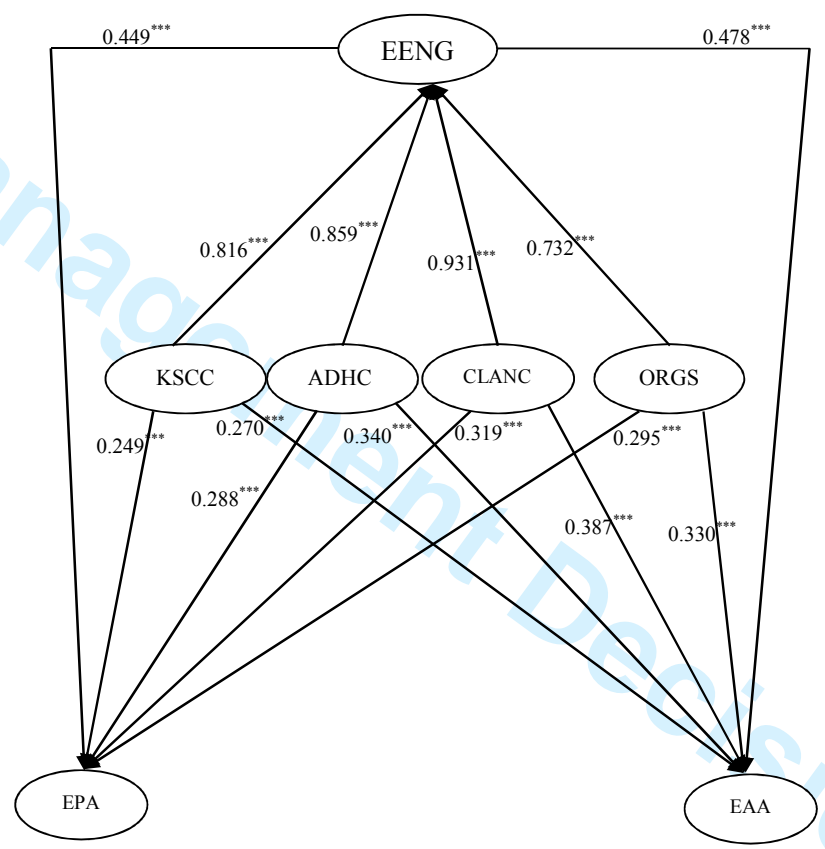


Figure II: Structural model showing the hypothesised relationships and the standardised parameter estimates

Goodness-of-fit Indices: GFI = .952 (> .900); TLI = .921 (> .900); CFI = .946 (> .900); RMSEA = .073 (< .08)  
All values represent significant values at \*\*\*  $p < 0.001$