Abstract

Technical and vocational education and training (TVET) is globally acknowledged as a key driver of economic and technological development of nations. Inescapably, given the right funding, TVET is the option that can address the issues of student dropout, productive employment, productivity, poverty alleviation and sustainable development. Yet, public funding of tertiary education in general and TVET in particular has remained a mirage with consequent dilapidation and decay of the sector as well as a negative image. Few studies have approached the issues from a marketing perspective. Research that leans on relationship marketing (RM) is fragmented and has neglected such construct as personalization and bonding. Recent studies have suggested the need to revalidate the effect of RM on loyalty in the context of TVET. The present study seeks to examine the effect of RM on financial performance of TVET through SL. A self-administered questionnaire was used to collect data from a sample of 535 students using multi-stage cluster sampling technique. Data analysis was carried out using descriptive statistics and Partial Least Squares method. Results show that the constructs of bonding, communication and personalization have a significant positive relationship with SL among TVET. To address their funding crisis and secure efficiency, Nigerian TVET should employ relational marketing strategies.

Keywords: Bonding, Communication, Personalization, Student satisfaction, Student loyalty, TVET

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Background to the Study
In the last few decades, there has been a growing research interest on student loyalty (SL) as a strategic means of enhancing the efficiency and competitiveness of public owned academic institutions (Cerda, Inostroza, & Garcia, 2020; Hennig-Thurau, Langer & Hansen, 2001; Moore & Bowden-Everson, 2012; Oviawe, Obidile, 2014; Uwameiye & Uddin, 2017). This is given the challenges of globalization and competition which has made it crucial to apply marketing strategies in the management of public schools (Bowden, 2011). Arguably, students are customers because they engaged in value exchange relationship with public owned academic institutions, they make choices regarding which academy and course to enroll, they pay tuition/school fees and expect a level of service attributes that meet their needs (Ehigie & Taylor, 2009). Thus, instead of focusing more on admissions, higher educational institutions (HEIs) owned by the public should pay particular attention to managing students' enrolment as a strategy for enhancing students' loyalty (Bowden, 2013).

Consequently, SL of public institutions has become a potent tool in the school quest for financial performance (Mazzarol & Soutar, 2012). This is even more critical for public TVET institutions which suffer most from low students' enrolment and dwindling public funding (Okoye & Arimonu, 2016; Sue, Hiep-Hung, Hong-Kong, The-cougng & Anh-vinh, 2019). TVET, defined as the type of education given to individuals to develop their creative and manipulative potentials for the benefit of humanity (Zahara, Selamat, Alavi, Khadijah & Arifin, 2018) is globally acknowledge as a key driver of economic and technological development of nations (Oviawe, Uwameiye & Uddin, 2017). Inescapably, TVET is the option that can address the issues of student dropout (Shirley, Chijioke & Chukwumaijem, 2015), productive employment, productivity, poverty alleviation and sustainable development (Yusuff & Soyemi, 2012).

This study examines the indirect effect of RM constructs of bonding, communication and personalization as antecedents of SL among public TVET institutions. These variables are important for a number of strategic reasons. Specifically, the role of the constructs of bonding and personalization in promoting SL has not been understood adequately. For instance, the theoretical understanding and conceptualizations of student bonding has remained fragmented and untested (Sinijders, Wijnia, Rikers & Loyens, 2020). Hence, the need to re-examine the effects of bonding (Leonard, Daryanto & Eva, 2018) and personalization (Lima & Firmandes, 2015) on student loyalty. Secondly, although several past studies have examined the link between RM and SL, most of these studies are fragmented. For instance, recent studies that examined the impact of bonding and personalization on SL were narrow in their measurement of student loyalty construct by focusing only on word-of mouth (Baber & Khatatk, 2017; Sinijders et al. 2020). Thirdly, it's extremely important to revalidate the adapted scales used by previous studies on SL in the tertiary education (Manzuma-Nadaaba,Harada, Nordin, Abdulteef & Romle, 2018) and better understand the antecedents of SL in the context of TVET institutions which are neglected by past studies (Douglas et al. 2015; Sue et al., 2019). Furthermore, it has been suggested that the mediation effect of the variables showing long-term relationships can be re-examined in the context of tertiary institutions in different contexts order to understand the role of explanatory variables better (Ismanova, 2019)
Theoretical Background

Student Loyalty

The construct of customer loyalty has received great attention by researchers and managers as a means of increasing patronage and brand equity (Palmatier, Dant, Grewal, & Evans, 2006). Scholars argue considerably over the meaning and dimensions of customer loyalty. On the basis of attitude and behavior, loyalty has been described as a strong commitment to a brand or product (Oliver, 1997). Nonetheless, initial works on customer loyalty, defined it in behavioural terms of repurchase intention and frequency of purchase (Oliver, 1999; Palmatier et al., 2006; Zeithaml, Berry, & Parasuraman, 1996). Afterward, an attitudinal element was added to customer loyalty which symbolizes the process through which behavioural loyalty is attained (Evanschitzky & Wunderlich, 2006).

Customer loyalty is construed as a deeply held commitment to buy a brand repeatedly regardless of factors that lead to switching and firm's promotion efforts (Oliver, 1997). According to Serenko (2011) a customer is termed loyal if he is biased to a brand, stays with same service provider and engages in positive word-of-mouth. Loyalty is analogous to highly involved service context such as academic institutions which explicates the role of satisfaction in its formation (Bowden, 2011). SL, therefore, is construed as the student's bias to a HEI brand by sticking to the academic institution until graduation and the willingness to come back to the same institution for further studies (Hennig-Thurau et al., 2001; Moore & Bowden-Everson, 2012). The concept of SL extends beyond the time when a student is registered formally to include ambassadorship and alumni which are in the larger public interest (Nesset & Helgesen, 2009). For public TVET institutions, it is of utmost importance to promote positive attitude towards the college brand in order to engender repeat purchase and referral through continue education (Bowden, 2011) and financial donation to the institutions (Ehigie & Taylor, 2009). This study hinges on the theory of reasoned action (TRA) to investigate the relationships between the constructs of bonding, communication, personalization, student satisfaction and SL of TVET. According to the TRA, the intention of the individual to perform an action is a combination of attitude towards the behavior and subjective norm (Fishbein, 1967; Fishbein & Ajzen, 1975). For instance, communitarians want to donate something to the society in return for what the society has given them. In the same vein, students who receive relational benefits such as positive experience, trustworthy communications, benevolent relationship, emotional commitment and customize school services want to maintain long term relationship with and positive ambassadorship of TVET (Ajzen, 1991; Nesset & Helgesen, 2012).

Relationship Marketing

RM has been defined as all marketing activities aimed at establishing, developing, and maintaining triumphant exchanges (Morgan & Hunt, 1994). RM has proved itself as a means by which organizations establish long – term beneficial relationships with clients, customers and stakeholders particularly where relationships are characterized by high interactions and uncertainties as in the case of students and tertiary institutions (Bowden, 2011). In the context of HEIs, RM involves marketing strategies designed to attract and enhance relationship with present and potential students as well as other stakeholders such as community, regulatory agencies, parents and reference groups (Moore & Bowden-Everson, 2012).
Bonding
Pivotal to successful RM is the creation and maintenance of strong, viable bonds between service providers and their clients (Sin, Tse, Yau, Chow, Lee, & Lu, 2005b). Bonds are described as psychological, physical, social or economic attachments that serve to bind parties together such that exit is made difficult (Lambe, Wittman, & Spekman, 2001). Bonding is a collaborative endeavor between two parties who are committed to the attainment of common objective in a dynamic and progressive way (Chattananon & Trimetsoonitorn, 2009). Formation of strong relational bonds between service providers and users predict positive experience, positive word-of-mouth and loyalty (Berry & Parasuraman, 1991).

RM literature suggests that bonding is related to customer satisfaction and loyalty. The work by Wang, Liang and Wu (2006) argues that the development of deeply entrenched emotional commitment to a service provider is based on bonding tactics. Bonding styles reinforce customer satisfaction, trust and repurchase intentions among financial service providers (Liang & Wang, 2008). The need for managers to pay special attention to social bonds in trying to build lasting customer relationships through customer satisfaction has been stressed by Hau and Ngo (2012). The social benefits that come along with relational bonds, such as personal recognition and friendships provide the necessary incentive for customer positive experience and commitment to relationship (Dagger & O’Brien, 2010). Scholars suggest that students' satisfaction is a correlate of bonding between students and the tertiary institution (Arckerman & Schbrowsky, 2007; Bowden, 2013, Leonard et al., 2018). Against these extent literatures, the following hypothesis is formulated:

H1: Bonding has significant positive effect on student satisfaction

Communication
Communication, defined as the sharing of trustworthy, meaningful, and timely information between service provider and customer (Ndubisi & Wah, 2005) is an important component of effective RM because it promotes trust, a strategic outcome of satisfaction. Communication also removes confusion and harmonizes perception between relational partners (Morgan & Hunt, 1994). Selnes (1998) and Andersen (2001) suggest that credible and timely communication between relational partners is an antecedent of customer satisfaction. The studies conducted by Ball, Coelho and Marchas (2004) and Ball, Coelho and Vilares (2006) have stress that good communication positively impact on all aspects of relationship especially on customer satisfaction, trust and loyalty. In the same vein, the work by Halimi, Chavosh and Coshali (2011) suggests that communication is a strong correlates of relationship satisfaction and hence, service providers should pay particular attention to communication to be able to derive customer loyalty. From the foregoing, the study postulates that:

H2: Communication has significant positive effect on student satisfaction

Personalization
Literature within and outside RM domain indicates that service personalization is a striking antecedent of customer loyalty (Ajio, 1996; Bettencourt & Gwinner, 1996). Personalization,
succinctly construed as any creation or adjustment of a service to meet the unique requirements and aspirations of a client (Ball et al., 2006) develops customer loyalty through different paths (Shen & Ball, 2009). The influence of personalization strategy on customer satisfaction is also evident in the study by Molina, Martin-Consegra and Esteban (2007). According to Halimi et al. (2011) service providers use personalization tactics to enhance customer satisfaction towards making more profit. The research by Coelho and Henseler (2012) suggests that personalization is an antecedent of customer satisfaction and trust, consistent with Deb and Lomo-David (2013). In the context of HEIs, services such as university portal and personalized data bases, staff advisor services and personalized emails are related to student positive experience and satisfaction (MacLaughlin, 2011), hence the following hypothesis:

H3: Personalization has a significant positive effect on student satisfaction

Student Satisfaction
Consistent with student as customer metaphor, student satisfaction is both antecedent and outcome variable and a primary antecedent of loyalty (Churchill & Suprenant, 1982; Hassan, Shamsudin, Hasim, Mustapha, Jaafar, Firdaus, Shukri, Karim & Ahmad, 2019). Scholars differ on the definition of customer satisfaction, but they seem to agree that satisfaction implies the necessary existence of a need the customer wants to meet (Molina et al., 2007). However, this study uses the Oliver's (1997) conceptualization of customer satisfaction as the evaluation of the perceived discrepancy between the expected and the actual performance of service or product. Therefore, customer satisfaction is an emotional and personal judgment of a service performance relative to expectation (Berry & Pararsuraman, 1991). Cueing on customer satisfaction literature, scholars consider student satisfaction as the individual evaluations and outcomes of the various experiences a student had with the public-school including facilities and staff-student interactions (Bowden, 2011; Ehigie & Taylor, 2009; Elliott & Shin, 2002).

Satisfied students are less likely to switch to competitors (Abubakar, Mokhtar & Abdullattef, 2013). In the same vein, Hallowell (1996) suggests that customer satisfaction is related to customer loyalty while the work by Armstrong and Seng (2000) discovers that 74 per cent of differences in loyalty among customers are accounted for by customer satisfaction. Furthermore, Ehigie (2006) found that managers could enhance customer loyalty by employing RM strategies aimed at enhancing customer satisfaction. Generally, RM literature applied to HEIs, suggests a strong link between Student satisfaction with school services and SL (Ehigie & Taylor, 2009; Nesset & Helgesen, 2009). Against this background, the following hypothesis is formulated:

H4: Student satisfaction has a significant positive effect on SL

Berry and Parasuraman (1991) suggest that satisfaction explains the link between bonding and customer loyalty in services business which is supported by the study conducted by Chiu, Hsieh, Li and Lee (2005). The research by Wang, Liang and Wu (2006) posited that bonding
tactics are indirectly related to customer loyalty. It is also suggested by the work of Bowden (2013) that students’ satisfaction with university services intervenes on the relationship between bonds and student loyalty. Based on the above, the following proposition is made:

H5: Student satisfaction mediate the relationship between bonding and SL

Selnes (1998) posited that customer satisfaction explains the relationship between communication and client loyalty consistent with Morgan and Hunt (1994). The work by Ball et al. (2004) and the subsequent research by Ball et al. (2006) suggest that communication has three paths: direct relationship with customer loyalty, direct relationship with customer satisfaction and indirect relationship with customer loyalty through customer satisfaction. Chen, Shi and Dong (2008) suggest that communication predicts customer satisfaction, trust and customer loyalty as supported by other studies (e.g., Cheng & Lee, 2001, Narteh, Agbemabiese, Kodua, & Braimah, 2013). Hence, the following hypothesis is put forward:

H6: Student satisfaction mediate the relationship between communication and SL

Ajio (1996) stresses that personalization predicts customer loyalty through customer satisfaction similar to the findings of Bettercourt and Gwinner (1996). Substantial argument exists in the work of Ball et al. (2006) that the relationship between of personalization customer loyalty is indirect. It is also posited that subject to the stage in relationship experience, personalization could have significant relationship with customer satisfaction and loyalty (Dagger & O’Brien, 2010) which is also supported by Coelho and Henseler (2012), in view of which the following hypothesis is made:

H7: Student satisfaction mediate the relationship between personalization and SL

Figure 1: Research Framework

Methodology
Sampling and Data Collection
The researcher carried out a cross-sectional survey and administered an adapted questionnaire face to face to a sample of 535 students across TVET, via a multi-stage cluster sampling procedure. In all 480 questionnaires were completed and returned but with only 416 usable responses retained for analysis. This was because 64 questionnaires were discarded on account of several missing data and multivariate outliers producing a response rate of 77 per cent. The participants comprised of 247 males and 169 females of different TVET programs.
**Measures**
Measurement items for the constructs were adapted from past studies, using 5 point Likert-scales, ranging from 1= strongly disagree to 5= strongly agree. Specifically, SL was measured using items provided by Caruana (2002) and Moore and Bowden-Everson (2012). Scales were driven for student satisfaction from Hau and Ngo (2012) and Bowden (2011). Similarly, bonding was measured using scales adapted from Chattatanon and Trimetsoorntorn (2009). The scales for communication were borrowed from Ndubisian, Wah (2005) while personalization was measured using items provided in Ball et al. (2006).

**Data Analysis and Findings**
As recommended by Leonnard et al. (2018), PLS path modeling method, via smart PLS was employed for the parameter estimation. A more cogent reason for using the PLS was the fact that the study seeks to extend the horizon of its underpinning theory (Hair, Hult, Ringle, & Sarstedt, 2014). Consistent with the suggestion by Henseler, Ringle and Sinkovics (2009) the measurement model was first estimated followed by the structural model, while the measurement model was assessed using internal consistency reliability via convergent validity, discriminant validity, composite reliability as well as Cronbach's Alpha.

**Table 1: Constructs’ Validity, Reliability and R Square**

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>R Square</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding</td>
<td>0.584679</td>
<td>0.848965</td>
<td></td>
<td>0.762943</td>
</tr>
<tr>
<td>Student loyalty</td>
<td>0.561199</td>
<td>0.864590</td>
<td>0.387233</td>
<td>0.804476</td>
</tr>
<tr>
<td>Communication</td>
<td>0.630431</td>
<td>0.836377</td>
<td></td>
<td>0.707951</td>
</tr>
<tr>
<td>Student satisfaction</td>
<td>0.561536</td>
<td>0.884765</td>
<td>0.432599</td>
<td>0.843759</td>
</tr>
<tr>
<td>Personalisation</td>
<td>0.610484</td>
<td>0.862365</td>
<td></td>
<td>0.787534</td>
</tr>
</tbody>
</table>

The Cronbach's Alpha and composite reliability values realized for each construct was above the minimum threshold of 0.70 (Hair, Black, Babin, & Anderson, 2010; Nunnally, 1978) (table 1.0). In addition, convergent validity was attained since the average variance extracted (AVE) for each variable was more than 0.50 (Chin, 1988). Similarly, the square roots of AVE were greater than the correlations among latent constructs, showing satisfactory discriminant validity of the measurement items (Fornell & Larcker, 1981) (tables 2.0 & 3.0).
Table 2: Cross loadings

<table>
<thead>
<tr>
<th>Construct</th>
<th>BON</th>
<th>CLOY</th>
<th>COM</th>
<th>CS</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>BON01</td>
<td>.715</td>
<td>.305</td>
<td>.305</td>
<td>.349</td>
<td>.309</td>
</tr>
<tr>
<td>BON02</td>
<td>.800</td>
<td>.315</td>
<td>.451</td>
<td>.417</td>
<td>.307</td>
</tr>
<tr>
<td>BON03</td>
<td>.785</td>
<td>.334</td>
<td>.460</td>
<td>.402</td>
<td>.391</td>
</tr>
<tr>
<td>BON04</td>
<td>.756</td>
<td>.329</td>
<td>.407</td>
<td>.361</td>
<td>.399</td>
</tr>
<tr>
<td>SLOY02</td>
<td>.325</td>
<td>.743</td>
<td>.330</td>
<td>.441</td>
<td>.323</td>
</tr>
<tr>
<td>SLOY03</td>
<td>.334</td>
<td>.794</td>
<td>.324</td>
<td>.486</td>
<td>.325</td>
</tr>
<tr>
<td>SLOY04</td>
<td>.289</td>
<td>.740</td>
<td>.251</td>
<td>.447</td>
<td>.322</td>
</tr>
<tr>
<td>SLOY05</td>
<td>.308</td>
<td>.704</td>
<td>.296</td>
<td>.416</td>
<td>.264</td>
</tr>
<tr>
<td>SLOY06</td>
<td>.313</td>
<td>.762</td>
<td>.343</td>
<td>.528</td>
<td>.326</td>
</tr>
<tr>
<td>COM01</td>
<td>.414</td>
<td>.278</td>
<td>.757</td>
<td>.363</td>
<td>.263</td>
</tr>
<tr>
<td>COM02</td>
<td>.453</td>
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<td>.822</td>
<td>.454</td>
<td>.428</td>
</tr>
<tr>
<td>COM03</td>
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<td>.333</td>
<td>.801</td>
<td>.406</td>
<td>.341</td>
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<tr>
<td>SSAT01</td>
<td>.401</td>
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<td>.449</td>
<td>.789</td>
<td>.531</td>
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<tr>
<td>SSAT02</td>
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<td>.438</td>
<td>.381</td>
<td>.721</td>
<td>.456</td>
</tr>
<tr>
<td>SSAT03</td>
<td>.396</td>
<td>.453</td>
<td>.352</td>
<td>.746</td>
<td>.479</td>
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<tr>
<td>SSAT04</td>
<td>.377</td>
<td>.447</td>
<td>.366</td>
<td>.754</td>
<td>.331</td>
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<tr>
<td>SSAT05</td>
<td>.424</td>
<td>.482</td>
<td>.382</td>
<td>.733</td>
<td>.331</td>
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<tr>
<td>SSAT06</td>
<td>.353</td>
<td>.481</td>
<td>.388</td>
<td>.752</td>
<td>.378</td>
</tr>
<tr>
<td>PER01</td>
<td>.312</td>
<td>.290</td>
<td>.369</td>
<td>.395</td>
<td>.753</td>
</tr>
<tr>
<td>PER02</td>
<td>.381</td>
<td>.377</td>
<td>.394</td>
<td>.457</td>
<td>.804</td>
</tr>
<tr>
<td>PER03</td>
<td>.385</td>
<td>.323</td>
<td>.298</td>
<td>.422</td>
<td>.788</td>
</tr>
<tr>
<td>PER04</td>
<td>.352</td>
<td>.312</td>
<td>.317</td>
<td>.475</td>
<td>.779</td>
</tr>
</tbody>
</table>

Table 3: Latent Variable Correlations

<table>
<thead>
<tr>
<th></th>
<th>BON</th>
<th>CLOY</th>
<th>COM</th>
<th>CS</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding</td>
<td>.765</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student loyalty</td>
<td>.419</td>
<td>.749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>.534</td>
<td>.414</td>
<td>.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student satisfaction</td>
<td>.501</td>
<td>.622</td>
<td>.517</td>
<td>.749</td>
<td></td>
</tr>
<tr>
<td>Personalisation</td>
<td>.458</td>
<td>.418</td>
<td>.440</td>
<td>.562</td>
<td>.781</td>
</tr>
</tbody>
</table>

To estimate the structural model, the PLS standard was used by bootstrapping 1000 re-samples and to examine the significance of the path coefficients as suggested by Chin (2010). All the hypotheses were supported as per the path coefficients and t-values (table 4.0).
Table 4: Structural Model Assessment Result

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Beta</th>
<th>Std. Error</th>
<th>t value</th>
<th>p value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>0.203</td>
<td>0.047</td>
<td>4.327</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>0.251</td>
<td>0.050</td>
<td>4.964</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>0.622</td>
<td>0.036</td>
<td>17.327</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>0.358</td>
<td>0.045</td>
<td>7.935</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>0.126</td>
<td>0.031</td>
<td>4.073</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>0.156</td>
<td>0.034</td>
<td>4.592</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>0.223</td>
<td>0.030</td>
<td>7.423</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

The R square values of 0.43 and 0.38 were obtained for student satisfaction and student loyalty respectively, which are satisfactory (Chin, 2010). Also, for the two endogenous constructs cross-validated redundancies were above zero (table 1.0), pointing at the predictive relevance of the research model (Chin, 1998).

Discussion

The support of the path between bonding and student satisfaction ($\beta = 0.203$, $t = 4.327$, $p < 0.000$) suggests that student satisfaction hinges on the deliberate effort to get closer to students by TVET institutions through investment in relational bonds, for instance, using in-campus services such as laboratories/workshops, bus service, hostel and sport services and facilities (Berry & Parasuraman, 1991). Other relationship bonding strategies include scholarship awards, tuition waivers and social participation and alumni activities (Archaman & Schibrowsky, 2007). The result of the significant positive effect of communication on student satisfaction ($\beta = 0.251$, $t = 4.964$, $p < 0.000$) shows that administrators of TVET and other HEIs should pay particular attention to interpersonal communication between staff and students and the TVET portal system as this can further enhance the reputation for academic excellence.

The significant positive relationship between personalization and student satisfaction ($\beta = 0.358$, $t = 7.935$, $p < 0.000$) suggests that to achieve student positive experience and satisfaction, managers of public TVET in Nigeria should customize certain aspects of their services such as advisor services, e-library services, and interpersonal communication between lecturers, supporting staff and students. To boost students' ego, public TVET managers can deploy personalized emails in an effective manner. Personalization of academic services by TVET administrators could be very expensive, but it's justified by its efficacy.

The empirical evidence of the positive link between student satisfaction and SL ($\beta = 0.622$, $t = 17.327$, $p < 0.000$) indicates that it's imperative for public TVET managers to recognize students' expectations prior to admission and endeavor to meet these anticipations as a precondition for SL. Considering the fact that students' expectations change over time, it is advisable for public owned TVET to determine students' satisfaction periodically by means of survey. In its quest to attain SL, the management of Nigerian TVET should review and
improve on teaching and research facilities. Of utmost importance, Nigerian TVET administrators should as a matter of priority hire proficient and reliable lecturers, technicians and technologies that will value relationship with students' and satisfy their needs.

A very cogent finding of the present research is the explanatory role of student satisfaction on the relationship between personalization ($\beta = 0.223$, $t = 7.423$, $p < 0.000$) communication ($\beta = 0.156$, $t = 4.592$, $p < 0.000$), bonding ($\beta = 0.126$, $t = 4.073$, $p < 0.000$) and SL indicating that the initiatives of the management of TVET in respect to academic service personalization, interpersonal communication and bonding tactics may not be sufficient to engender SL unless students are satisfied with the services offered by TVET institutions.

**Limitations and Future Research Directions**

In spite of the compelling evidences of the current study, its findings should be taken in consideration to some limitations. First, despite the fact that student attitude and perception are subject to change over time, the research was cross-sectional in nature. Yet, the results of the research are informative and could provide a foundation for examining the postulated changes in student behavior over time through a longitudinal survey in future. Secondly, this research examines student satisfaction on cumulative basis. Future research may assess student satisfaction with explicit services provided by public TVET institutions like laboratories, workshops, hostel accommodation, research facilities and their relationship with SL. Thirdly, the study only determines the effect of three major RM dynamics that appear to be neglected by past studies through the intervening construct of student satisfaction. Therefore, future studies may wish to introduce a moderating variable that may strengthen or weakens the established link between the endogenous and exogenous variables in this study. Fourthly, data for this study was collected from the polytechnics alone. Hence, in future research, sample should include public owned technical universities and colleges across Nigeria.

**Conclusion**

This study aims to examine the predictors of SL among public owned TVET Institutions in Nigeria. The research findings suggest that bonding, communication and personalization predict SL through the explanatory variable of student satisfaction. Nigerian public owned TVET institutions can advance their finances and engender alumni contribution by employing RM strategies of bonding, communication, personalization and student positive experience. Taken together, the study has advanced the existing knowledge of the antecedents of SL among public owned TVET Institutions in Nigeria.
References


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