

RESEARCH TITLE

Measuring and Modelling Service Quality in Ethiopian Public Higher Education

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ABSTRACT

This study serves two major purposes. First, it explores and validates attributes, dimensions and constructs that can be used to measure service quality in the Ethiopian public higher education (EPHE) context. Second, it examines the interplay among the major service quality constructs and student related variables in search of a comprehensive theoretical framework for HE service quality. Drawn from these two broad objectives, the study started its investigation by formulating a central research question that states: 'How can we measure and model service quality in the EPHE context?' This central research question was further broken into more specific questions that explore attributes, dimensions and constructs essential to measure service quality (RQ1), test for the measurement model fit (RQ2), examine the relationships or associations among the four service constructs and characteristics of students (RQ3), test for the structural model fit (RQ4), determine the causal relations among the variables in the structural model (RQs4.1 - 4.7), and assess service quality performances of EPHE institutions (RQ5).

These research questions were theoretically addressed in chapters two and three. At this stage possible service quality attributes, dimensions and constructs were analytically identified, and a theoretical framework of service quality was hypothesised at a general level to guide the study. Qualitative and quantitative phases of empirical studies followed the literature study to verify the theoretical findings in the context of EPHE. Informed by the pragmatism world view, a mixed methods study with the qual-QUAN exploratory sequential design was employed to empirically answer the research questions. Twenty interviewees selected using a combination of stratified purposeful sampling and criterion sampling techniques took part in the qualitative phase to explore the attributes, dimensions and constructs of service quality in the EPHE context. This phase also served to identify student characteristics that have some association with their perception of service quality constructs. The data obtained through interviews were analysed employing thematic analysis and narration of verbatim accounts. The analysis resulted in three levels of themes that represent attributes, dimensions and constructs of service quality. The results of the qualitative phase were used to develop a questionnaire designed to measure service quality more objectively.

The psychometric test of the instrument marked the beginning of the quantitative phase. A pilot test was carried out at a public university different from the target population of universities to determine the psychometric properties of the instrument. A total of 460 students selected from different batches of undergraduate regular students in four programmes using proportionate stratified random sampling were involved in the pilot test.

The main study was carried out in three universities selected from a target population of seven public universities employing the lottery sampling method. Concurrently, four were chosen from a target population of 27 commonly offered programmes in the three sample universities employing systematic random sampling. Considering different batches and the four programmes as strata, 1412 undergraduate students were included in the main study using proportionate stratified random sampling technique. The data obtained from the questionnaire from these respondents were analysed using descriptive and inferential statistics. Descriptive statistics such as percentage, mean and standard deviation were used to describe the data and characteristics of respondents. Inferential statistic including Pearson correlation, confirmatory factor analysis (CFA), exploratory factor analysis (EFA), independent sample t-test, one way analysis of variance (ANOVA), structural equation modelling (SEM), path analysis and one-sample t-test were employed to answer the research questions. AMOS version 18, SPSS version 20 and Stat tool were used to run the data.

The results from the qualitative and quantitative phases show that service quality can be measured by four constructs of which three are multi-dimensional and one is a single dimensional construct. Perceived service quality has 16, satisfaction has three and perceived gain has five dimensions. Loyalty is the single dimension construct. The measurement model fit analysis resulted in an acceptable fit index (i.e., CMIN/DF = 4.398, GFI = .915, CFI = .951, RMSEA = .049 and PCLOSE = .743) after some re-specifications and confirmed the structural validity of the instrument. The measurement model is also invariant to students' differences in gender, residence, programmes of study and the institution thus implying cross-validity. Mixed results were obtained with regard to the correlations/associations between student characteristics and service quality constructs. After some re-specification, a hybrid of measurement and structural model for the four service quality constructs and nine student related variables were identified with an acceptable fit index (CMIN/DF=3.856, GFI=.901, CFI = .934 and RMSEA=.045, p=1.000).

The path analysis also revealed that loyalty is a latent construct with 62% of its variance predicted by the joint effects of perceived service quality, satisfaction and perceived gain. Each of these predictor latent constructs are also explained by some other control variables and latent constructs included in the model. For instance, 60% of the variance in students' satisfaction is predicted by years of study, perceived service quality, and perceived gain. Similarly, 29% of the variance in perceived gain is predicted by goal orientation and perceived service quality. The nine student variables also explain 12% of the variance in perceived service quality. Students also perceived the current status of service quality in EPHE institutions as daunting in all constructs of service quality except perceived gain. Finally, conclusions pertinent to the measurement instrument and understanding of higher education service quality are drawn, and recommendations that have theoretical and practical implications are forwarded.

Keywords: higher education, service quality, perceived service quality, satisfaction, perceived gain, loyalty, student characteristics, academic service, support service

The full thesis can be found at <http://hdl.handle.net/10500/23732>