Abstract

In contemporary society, satisfying customer's needs has become a phenomenon seen to be highly inevitable for business that wants to survive in this era of high competition amidst the global financial crisis. A customer’s experience during a service encounter consist of two parts namely: the time spent waiting for the service and the service itself. The nature of the service, which is the resolution status, is a major key performance indicator (KPI) to measure the success of a call center. The challenge in the traditional call centres in Nigeria, is the ineffective resolution of calls which causes customers to call back immediately after an interaction with a call center agent. This is because the issue was not resolved in the previous encounter. The purpose of this research is to evaluate the performance results of three Call Resolution (CR) routing rules, using data collected from the call center of a telecommunication organisation Nigeria. The evaluation was conducted using simulation techniques. A sample of 2,000 calls was used for the simulation. Java programs were developed for each of the routing rules because they vary from one approach to another in operation. Results from the simulation gave the performance of all routing rules for CR, non CR, percentages of resolved call and call backs.
From the result, we observed that the higher the resolved calls the lower the rate of call backs and vice versa. We also observed that out of the proportion of unresolved calls, a particular number of customers did not call back. The result from the study gave the optimal routing rule to be the Shortest Queue Routing (SQR), which proffered an enhanced call resolution rate and a very low call back rate. The implementation of the SQR as the optimal routing rule, will improve performance of call center management with respect to enhanced CR and reduced call backs.

References

Index Terms

Computer Science          Networks

Keywords

Call Center, Call Resolution, Call Backs, Routing Rules, Simulation