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Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_41839
Title of the Manuscript:	MODELLING AND SIMULATION OF DEPOSIT SLIP MODE OF BANK CASH DEPOSIT TRANSACTIONS USING HIERARCHICAL TIMED COLOURED PETRI-NETS
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	1) The paper does not include Keywords. It is something very common in the most of the papers. Could you include it? 2) The Section Introduction should include how the paper is organized (sections and sub-sections). It would help to understand the structure of the paper from the beginning. 3) The conclusions of the paper should be clarified and improved: • Can this proposal be extrapolated or compared with other frameworks or scenarios? • Can this proposal be applied to all the type of banks? What about the online banks? 4) The platform (including the hardware and software used) that has supported the case analysed in detail to obtain the main conclusions is not clear: It is a relevant component of the case. 5) The number of references about the subject should be increased. Mainly about Hierarchical Timed Coloured Petri Nets (HCPN) and bank cash deposit transactions in order to improve the conclusions and the scope of the research. 6) According to the paper, the model presented is useful for bank decision makers in capacity building to enhance service quality and delivery .However, there are not metrics or key performance indicators about service quality and deliver on the paper. Has the model presented taken into account these metrics? It is a key aspect of the paper, as mentioned in the abstract. . 7) A state of the art or the history review about Hierarchical Timed Coloured Petri Nets (HCPN) is necessary in the paper.	Keywords: the keywords have been included, they are Deposit Slip, Hierarchical Timed Coloured Petri-Nets (HTCPN), Easy Fit Software. How paper is organized has been highlighted The conclusion was clearly stated Yes, this model can be applied to all banks, including Point of Sale (POS), teller machine. Infact, papers are coming on the two as soon as possible. The only thing one has to do is to get the peculiarity of the bank and it will serve as the input to the model already developed. The model developed took into account the following metrics: Average Queue Length, Average Utilization Rate and Average Flow Time. From the presented results, it can be concluded that there were queue on Monday morning, Monday afternoon and Friday afternoon for customers depositing money. The queue was as a result of the utilization rate of the Tellers, the utilization rate represents the average proportion of time which the server is occupied. When the arrival rate was less than the service, the queue was undersaturated, when it was equal to service rate, the queue was saturated but when it was greater than service rate, it was oversaturated. Also, when the utilization rate was less than 1(100%), there was no queue but as the utilization rate tends towards 1(100%), queue began to build. This can also be explained from business point of view because on Mondays, customers will want to save the money they have realized over the weekend and even on Fridays; they will not want to go home with the money they have realized for the week. So this aforementioned factor is responsible for the



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		queue experienced on these days of the week, this also accounted for the long waiting time of customers in the system (flow time).
<u>Minor</u> REVISION comments	8) One of the assumptions of the paper is that the customers arrive at the banking premises randomly. Is it not possible to analyse it based on historical data? It could improve the model presented. 9) There are some paragraphs not properly justified. 10) Please, include a reference about the Statistical Package for the Social Sciences software (version 17.0). 11) It's assumed that the case has been applied on a testing environment, not on an operational environment. It has been analysed the impact on the operational environment?	The model cannot be analysed based on historical data because after the data collected were analysed to get the distribution, the distributions gotten were as against the assumed poisson arrival time distribution and exponential service time distribution in the existing empirical studies. This has been done The operational environment was visited to get necessary data (primary) that were used as input to the developed model
<u>Optional/General</u> comments	12) In general terms, the paper is interesting, but there are some key aspects about the methodology were not explained in detail (platform, metrics, KPIs, type of environment) and the model proposed has not been compared with others.	