

# Effective Queue Management for Better Customer Service: A Study of Café Exi Banyuwangi

Gestin Galma Ayu Findriyanto<sup>1</sup>, Maheni Ika Sari<sup>2</sup>, Rusdiyanto<sup>3</sup>

<sup>1,2,3</sup>Universitas Muhammadiyah Jember

\*Correspondence: Gestin Galma Ayu  
Findriyanto  
Email: [gestingaalma@icloud.com](mailto:gestingaalma@icloud.com)

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**Abstract:** This research aims to analyze the queuing system implemented by Cafe Exi Banyuwangi and to analyze the use of optimal waiting line methods to increase service efficiency at the cafe. The research was conducted through direct observation of the existing queuing system and involved data analysis related to customer waiting times, number of customers, and other variables that influence service efficiency. This study used descriptive qualitative method. Qualitative research was chosen because it can describe the phenomena that occur more clearly and in depth. This research focuses on an in-depth understanding of how queues operate at Cafe Exi Banyuwangi, covering aspects such as customer waiting time, number of customers, and other variables that can influence service efficiency. The results of the Waiting Line Method calculation show that the level of service utilization is only 25%, so there is a lot of idle or rest time. Cafe Exi Banyuwangi's service time should be 3.2 minutes per visitor, so it is not in accordance with the current service which takes 15 minutes per visitor to Cafe Exi Banyuwangi.

**Keywords:** Queue System, Waiting Line Method

## INTRODUCTION

Operational Management is realizing economic efficiency (cost minimization) in the production process, both goods and services, of high quality, can be delivered to the market quickly (speed of delivery), and production equipment can be immediately transferred to work other products (flexibility). Operational Management examines goods and services, while factory management and production management only discuss the production of goods. Apart from that, operational management orientation is increasingly broader and is commonly referred to as having a cost, quality, delivery speed and process flexibility orientation (QCDF Orientation) (Tjiptono 2014).

Factors that influence operational management are managers/leaders, basically every action taken by a manager or leader influences several things, including the organization's rules, policies, and procedures—particularly those pertaining to personnel matters, distribution, and rewards—as well as communication styles, motivational tactics, disciplinary measures, group interactions, and the need to address occasional employee problems as well as the need for employee welfare and satisfaction.

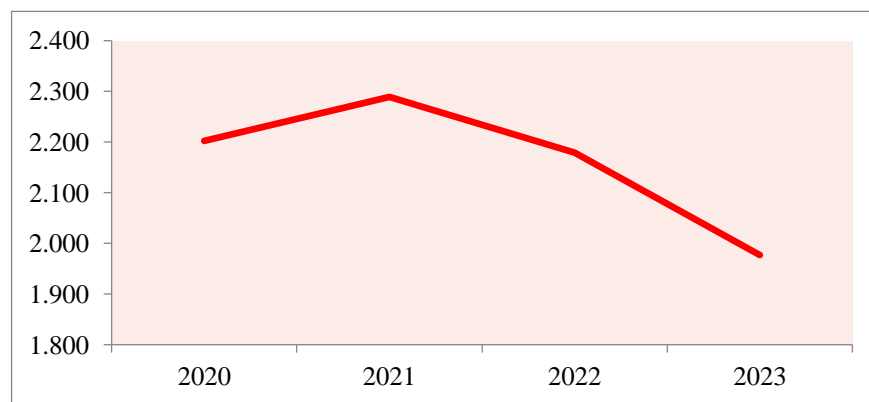
One of the businesses that continues to grow rapidly along with the progress of the times is the culinary business, because culinary is now not only a basic human need but has become a lifestyle. The development of the times has changed the tradition of people from consuming food and drinks at home to consuming them outside the home. The development of cafe and restaurant businesses in Indonesia itself grew around 15 – 20% in 2015 based on data from the Indonesian Cafe and Restaurant Entrepreneurs Association

(Apkrindo), of course this cannot be separated from the core human need to eat and drink. Banyuwangi Regency is one of the regions in Indonesia which is a major tourist destination in East Java Province. Banyuwangi Regency itself has dozens of cafes, each of which emphasizes its appeal to consumers with different class segmentations.

According to (Apriasty and E. Simbolon 2022) there are five factors that can influence consumer satisfaction, including the first is product quality, the second is price, the third is service quality, the fourth is emotional factors, and the fifth is cost and ease of obtaining products and services.

Service quality can be explained as an effort to satisfy consumers' needs and desires, as well as the accuracy of delivery to suit their desires consumer. According to (Apriyanti et al. 2023) service quality is a form of measuring the service value received by consumers and the dynamic conditions in which the product or service meets consumer expectations.

Competition for cafes in Banyuwangi Regency has resulted in visitors to Cafe Exi Banyuwangi experiencing fluctuations, in 2021 the number of visitors has increased, while in 2022 and 2023 the number of visitors has decreased.



**Figure 1. 1 Data on the number of visitors to Cafe Exi Banyuwangi 2020 – 2023**

**Source: Cafe Exi Banyuwangi, 2023**

Based on the data above, it can be concluded that in 2020 to 2021 Cafe Exi Banyuwangi experienced an increase, while in 2022 and 2023 the number of visitors to Cafe Exi Banyuwangi decreased. The absence of accurate calculations regarding the Cafe Exi Banyuwangi queue system causes crowding when conditions are busy with customers. Cafe Exi Banyuwangi customers feel dissatisfied, because the service is considered slow in responding to customer wishes. As a result of dissatisfied customers, the company's expected revenue targets can be hampered. Based on these problems, the Waiting Line method was applied to evaluate better service in Cafe Exi Banyuwangi sales. Researchers conducted a pre-survey of 30 Cafe Exi Banyuwangi employees regarding operational performance with the following results:

**Table 1.1 Pre-survey results for Cafe Exi Banyuwangi employees**

o	Statement	Respondents' Answers & Percentage (%)		Number of respondents & Percentage (%)
		Agree	No	
	Cafe Exi Banyuwangi mon-	25	5	30 respondents

itors activities to repair defective products	(83.3%)	(16.7%)	(100%)
Cafe Exi Banyuwangi has the ability to change production volumes according to consumer demand	26 (86.7%)	4 (13.3%)	30 respondents (100%)
Cafe Exi Banyuwangi knows the duration between ordering and receiving goods purchased from suppliers	23 (76.7%)	7 (23.3%)	30 respondents (100%)
Cafe Exi Banyuwangi knows the stock of raw materials	24 (80%)	6 (20%)	30 respondents (100%)
Cafe Exi Banyuwangi increases productivity due to minimal machine damage	25 (83.3%)	5 (16.7%)	30 respondents (100%)
Cafe Exi Banyuwangi always tries to minimize the average rate of internal damage (such as the cost of defective products, scrap, rework, process failures and machine damage)	29 (96.7%)	1 (3,3)	30 respondents (100%)

**Source: Processed data, 2023.**

Based on the results of a pre-survey of Cafe Exi Banyuwangi employees, it shows that there are employees who do not agree with the operational performance of Cafe Exi Banyuwangi. This is because there are Cafe Exi Banyuwangi employees who are not careful in monitoring activities to repair defective products, Cafe Exi Banyuwangi employees do not know the duration between ordering and receiving goods purchased from suppliers, Cafe Exi Banyuwangi employees do not know the stock of raw materials so there is a menu which is empty.

The Waiting Line method is commonly used to manage service queues. This is one of the methods used in solving problems found in decision making such as staff selection, queuing programs from computer systems, making staff schedules and so on. From these phenomena, research was carried out with the title **“Effective Queue Management for Better Customer Service: A Study of Cafe Exi Banyuwangi”**

## METHOD

This research uses qualitative methodology where this qualitative research does not use quantitative statistical figures. Researchers conduct qualitative research to understand phenomena that occur in research subjects, with explanations in the form of words. In this research, we see the effectiveness of the waiting line method at Cafe Exi Banyuwangi. Moeleong, defines qualitative methods as research procedures that produce descriptive data in the form of written or spoken words or forms of policy action. According to (Ali et al. 2022) what is meant by research that produces discoveries that cannot be achieved (obtained) using statistical procedures or other means of quantification (measurement). In general, the reason for choosing to use qualitative research is because the problems taken from a social issue are unclear, complex and dynamic so it is impossible for the social problems taken to be filtered using quantitative research with instruments such as tests, questionnaires, interview guides for in-depth problem situations, finding patterns of hypotheses and

theories. Meanwhile, the type of research used by the author is phenomenology, which is a type of research that attempts to reveal the meaning or concept behind social phenomena or events.

Researchers analyze the data they get through observation, interviews, and documentation by meaning or interpretation process. Dalam penelitian qualitative, ada beberapa model analisis data, seperti metode analisis data yang konstan yang diusulkan oleh Glaser & Strauss, metode analisis data yang diusulkan oleh Spradley, dan metode analisis data yang diusulkan oleh Miles & Huberman. Dalam penelitian ini, analisis data interactive model digunakan. Data analysis happens at the same time as the data collection process, which has a sequence of steps: data collection, data reduction, data display, and conclusions or verification (drawing conclusions and verifying them).

## RESULTS AND DISCUSSION

Based on the research results, it shows that the Cafe Exi Banyuwangi queuing system implements a queuing system with a Multichannel-Multiphase model which has a first in first out queuing discipline. Unpredictable arrival patterns occur where the average service level is less than the average arrival, resulting in quite long customer waiting times. Cafe Exi Banyuwangi has not implemented an effective and efficient waiting line method queuing system so that the service provided is less than optimal as a result of which consumers have to wait a very long time when it is crowded at certain times. Cafe Exi Banyuwangi's efforts to reduce the level of long queues are still considered less than optimal, this can be seen when it is busy, there are long queues.

Our basic queue structure models are common in all queuing systems. They are as follows (Nurmalitasari and Fauzan 2022):

1. Single Channel – Single Phase  
Phase Single Channel means there is only one path to enter the service system or there is only one service. Single Phase also means there is only one service station so that people who have received service can leave the system immediately
2. Single Channel Multi Phase  
This structure is known as Single Channel because it only has one service line. The phrase "multi-phase" denotes the sequential execution of two or more services. following the completion of the service, as additional services are required to ensure its perfection. You are free to depart the service area once the service is flawless. Take an automated car wash, for instance.
3. Multi Channel Single Phase  
Just One Phase When a single queue serves two or more facilities, a multichannel system is present. While the service system only has one phase, this system has multiple service lines and facilities. An illustration would be a bank where multiple tellers assist customers.
4. Multi Channel Multi Phase  
Multiple service facilities are available at every stage of these systems, enabling the simultaneous service of multiple individuals. In general, queuing theory cannot be used to analyze this network due to its complexity. As an illustration, consider the continuous care that nurses provide to patients in hospitals. They visit the patients on a regular basis and assist with everything from registration to diagnosis and treatment to payment.

The results of the Waiting Line Method calculation show that the level of service utilization is only 25%, so there is a lot of idle or rest time. Cafe Exi Banyuwangi's service time should be 3.2 minutes per visitor so it does not match the current service, which is 15 minutes per visitor to Cafe Exi Banyuwangi. System improvement is one way to improve an existing system by looking at the problems of the system. The system that requires improvement is the customer queuing system at the cashier in the hope of reducing queues and seeing whether improving the system provides significantly better results or not.

## CONCLUSION

Based on the results of the research and discussion described in the previous chapter regarding "Implementation of the Operational Management System for Food Menu Ordering Services Using the Waiting Line Method at Cafe Exi Banyuwangi". The conclusions drawn by researchers are as follows:

1. The Cafe Exi Banyuwangi queuing system implements a queuing system with a Multichannel-Multhiphase model which has a first in fist out queuing discipline.
2. Unpredictable arrival patterns occur where the average service level is less than the average arrival, resulting in quite long customer waiting times.

Waiting Line Method calculations, it shows that the level of service utilization is only 25%, so there is a lot of idle or rest time. Cafe Exi Banyuwangi's service time should be 3.2 minutes per visitor so it does not match the current service, which is 15 minutes per visitor to Cafe Exi Banyuwangi. System improvement is one way to improve an existing system by looking at the problems of the system. The system that requires improvement is the customer queuing system at the cashier in the hope of reducing queues and seeing whether improving the system provides significantly better results or not.

## REFERENCES

- [1] Aini, Salsabillah Ainun, Bayu Wijayantini, and Rusdiyanto Rusdiyanto. 2022. "Pengaruh Persepsi Kemudahan Dan Persepsi Fitur Layanan Islami Terhadap Keputusan Nasabah Menggunakan Mobile Banking Bank Syariah Indonesia Cabang Jember." *National Multidisciplinary Sciences* 1(3): 493–503.
- [2] Ali, M.Makhrus, Tri Hariyati, Meli Yudestia Pratiwi, and Siti Afifah. 2022. "Metodologi Penelitian Kuantitatif Dan Penerapannya Dalam Penelitian." *Education Journal*.2022 2(2): 1–6.
- [3] Apriasty, Ika, and Marina E. Simbolon. 2022. "Faktor-Faktor Yang Mempengaruhi Kepuasan Pelanggan: Kualitas Produk, Kualitas Pelayanan Dan Harga (Literature Strategic Marketing Management)." *Jurnal Ilmu Multidisplin* 1(1): 135–45.
- [4] Apriyanti, Cikit, Lizvan M Sitorus, Maya Novianti, and Riya Notavia. 2023. "Pengaruh Kualitas Layanan Terhadap Kepuasan Nasabah Pada PT.Permodalan Nasional Madani (Persero),Tbk Cabang Rejang Lebong." *Jurnal Ekonomi Bisnis, Manajemen dan Akuntansi (JEBMA)* 3(3): 809–16.
- [5] Efendy, Aqnes Devita, Maheni Ika Sari, and Rusdiyanto. 2023. "ANALISIS KINERJA KEUANGAN TERHADAP PERTUMBUHAN LABA INDUSTRI BARANG KONSUMSI SYARIAH." *IPM2KPe Journal* 4(1): 88–100.
- [6] Nawafil, Aulia Nurin, Retno Indah Supeni, and Rusdiyanto. 2022. "KEPUASAN NASABAH MAHASISWA UNIVERSITAS MUHAMMDIYAH JEMBER ATAS KUALITAS LAYANAN BANK SYARIAH INDONESIA CABANG JEMBER." *Jurnal Ekonomi dan Bisnis GROWTH* 20(2): 237–51.
- [7] Nurmalitasari, Lutfia Indah, and Muhammad Fauzan. 2022. "Analisis Sistem Antrian Model Multi Channel Single Phase Pada Teller Bank Mandiri Sleman." *Jurnal kajian dan terapan matematika* 8(2): 129–37. <http://journal.student.uny.ac.id/ojs/index.php/jktm>:
- [8] Susanti, Novita Dwi, and Maheni Ika Sari. 2022. "Pengaruh Motivasi Kerja, Employee Engagement, Dan Disiplin Kerja Terhadap Kinerja Pegawai Pada PT. Barokah Sholawat Inodnesia Cabang Jember." *National Multidisciplinary Sciences* 1(3): 424–38.
- [9] Tjiptono. 2014. "Service, Quality & Satisfaction."