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# Motorcycle Parking Capacity Analysis around UNIKOM Campus, Jalan Dipatiukur, Bandung City

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# ABSTRACT

Customer satisfaction with the quality of parking services is viewed from five aspects: tangible, reliability, responsiveness, assurance, and empathy. The survey method in the field (field research) is direct observation around the UNIKOM BANDUNG CAMPUS through the deployment of surveyors at observation points (cordon count). The survey results were analyzed using the Microsoft Excel program. Data collection by recording the number of motorized vehicles entering and exiting at a certain time. The parking capacity for use in calculating the parking capacity survey (existing) is 176 SRP for motorbike parking in place A and 186 SRP for motorbike parking in place B. The results show that the maximum volume of parking reaches 188 motorbikes for parking A and 190 motorbikes for parking B. The highest accumulation reached 190 motorbikes for motorcycle A parking and 305 for parking B. The use of parking space in terms of Parking turnover reached an average of 0.964 for Parking A and 1,416 for Parking B. If the need for parking space is greater than the available capacity then the number of parking spaces is not sufficient. And vice versa, if the need for parking space is less than the available capacity, it means that the number of parking spaces can still accommodate the vehicle that will be parked.

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#### 1. INTRODUCTION

The demand for motorcycle parking has become a big problem in big cities in the world, especially in tropical and subtropical countries, including Indonesia. Problems arise mainly because the need increases drastically every year. In line with the growth in the use of motorcycles in Indonesia. To meet the need for motorbike parking spaces in office areas, terminals, or train stations. There is a new business opportunity in the form of motorbike storage at home or shop. The density of motorbikes and the difficult parking system at UNIKOM BANDUNG CAMPUS means that motorbike users divert to park at their homes or shophouses on Jalan Dipatiukur near UNIKOM BANDUNG CAMPUS. With the large number of parking lots located at homes or shop houses near the UNIKOM BANDUNG CAMPUS, it is necessary to study parking services. Parking services are two important components and cannot be separated in achieving the level of satisfaction of parking service users in a good parking system. The purpose of this research is to get the SRP of parking in parking areas A and parking B, parking accumulation at the time of research, parking needs in parking A and parking B, the maximum number of vehicles in parking A and parking B and get the results from parking outside and inside UNIKOM CAMPUS BANDUNG. Parking Space Requirement is the number of places needed to accommodate vehicles that require parking based on the facilities and functions of land use. To find out the need for parking in an area that is being studied, it is first necessary to know the purpose of the parkers (Abubakar, I, 1998). Parking volume is the total number of vehicles using parking facilities, usually calculated in vehicles parked in one day (Abubakar, I, 1998). In general, the implementation of this research was carried out in several stages. Stages of data collection are both primary and secondary, primary data is obtained by recording at the point of observation (Cordon Count) and the secondary data needed is the Site Plan/Situation Map of the Research location. In the implementation of modeling for simulation, identification of the existence of the system is carried out to obtain an overview of the system studied in the form of an input-output schematic diagram (AI Syahidina, A. Goeritno and Syaiful, 2017). The purpose of parking is to provide a place for vehicles to rest and to support the smooth flow of traffic (Directorate General of Land Transportation, 1996). The parking space unit is a parking space for one vehicle. Where parking is controlled parking spaces should be marked on the road surface.

The determination of Parking Space Units is based on the type of vehicle, and the size of the parking space in square meters (Directorate General of Land Transportation, 1998). In this study, using data collection or research, only sample elements (part of the population elements) were examined, and the results are estimated data. The sample only records and investigates some objects, symptoms, or events and not all of them. The purpose of sample theory is to make research efficient, meaning that lower costs obtain the same high level of accuracy or at the same cost a higher level of accuracy is obtained (Hermawan, Warsito, 1995). Also conduct direct interviews with vehicle drivers with data on vehicle registration numbers, vehicle classification, when the vehicle enters, when the vehicle exits, primary parking destination and parking location conditions, and other data (Hobbs, FD, 1995). Satisfaction is a person's level of satisfaction after comparing the perceived performance or results compared to his expectations. So satisfaction or dissatisfaction is the conclusion of the interaction between expectations and experiences after using the services or services provided (Kotler et al, 2008). Consumer satisfaction is the result felt by buyers who experience the performance of a company that is following their expectations (Kotler, Philips, 200). Advantages in the use of samples (Marzuki, 1997). Namely saving costs, time, and energy, cheaper costs, shorter time, and less effort required. In parking, there is also a minimum SPM

service standard based on Table 1 below. The determination of Parking Space Units is based on the type of vehicle, and the size of parking space in square meters (Directorate General of Land Transportation, 1998). In this study, using data collection or research, only sample elements (part of the population elements) were examined, and the results are estimated data. The sample only records and investigates some objects, symptoms, or events and not all of them. The purpose of sample theory is to make research efficient, meaning that lower costs obtain the same high level of accuracy or at the same cost a higher level of accuracy is obtained (Hermawan, Warsito, 1995). Also conducted direct interviews with vehicle drivers with data on vehicle registration numbers, vehicle classification, vehicle entry time, vehicle exit time, the main purpose of parking and parking location conditions, and other data (Hobbs, FD, 1995). Satisfaction is a person's level of satisfaction after comparing the perceived performance or results compared to his expectations. So satisfaction or dissatisfaction is the conclusion of the interaction between expectations and experiences after using the services or services provided (Kotler et al, 2008). Consumer satisfaction is the result felt by buyers who experience the performance of a company that is following their expectations (Kotler, Philips, 200). Advantages in the use of samples (Marzuki, 1997). Namely saving costs, time, and energy, cheaper costs, shorter time, and less effort required. In parking, there is also a minimum SPM service standard based on Table 1 below (Ministry of Settlement and Regional Infrastructure, 2001).

NO	SERVICE FIELD	INDICATORS	STANDARD SERVICE		QUALITY
				QUALITY	_
			SCOPE	SERVICE LEVELS	-
1	2	3	4	5	6
	Open space facilities (parks, public cemeteries, parking)	<ul> <li>Served customers</li> <li>% outdoors</li> <li>% functional space</li> <li>% space distribution</li> </ul>	<ul> <li>Environmental units with a total of &lt; 30,000 inhabitants</li> </ul>	<ul> <li>There are environmental parks for every 250 people</li> <li>0.3 m2/population of the area</li> <li>Environmental parking 3% of the area</li> </ul>	Clean, easy to reach, well- maintained, beautiful, and comfortable

Table 1. Guidelines for Determining Min	nimum Service Standards
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The parking turnover rate is the rate of use of a parking space in a certain period. Please Turn Over/PTO can be obtained by dividing the number of vehicles that have used the parking space at certain time intervals by the available parking space (Oppenlender JC and PC Box, 1976). Parking rates are a very useful tool for controlling the number of parked vehicles. Parking fees are handled in the usual way in Indonesia, namely by parking attendants (parking attendants or jukir). Until October 2022, parking rates are based on regional regulations (Bandung City Regional Regulation, 2008). By car pay, IDR 2,000, and motorbikes pay IDR 1,000. This rate is not based on time. But recently Indonesian cities have been practicing increasing rates by asking for higher fares from motorists who stay for more than an hour or two. So in practice, it is possible to apply progressive tariffs before implementing a complete dance change. The decision was made to triple parking rates along the road. This will be implemented in early July 2022. Unfortunately, there is no data on parking occupancy rates and timeframes to describe conditions before and after the rate change. The new tariff structure based on local regulations is IDR 6,000 (car), and IDR 3,000 (motorcycle) (Bandung city regulation, 2022). Parking accumulation is the number of vehicles parked in a place at a certain time and can be divided according to the category of type and purpose of the trip. where the integration of parking at a certain period, shows the parking load (number of parking vehicles) in one vehicle hour per certain period (Raharjo, ADA, 2011). Motorcycle

services and public and non-public transportation in Bandung are the main targets including the speed of motorbikes and other transportation (Syaiful, 2005; Syaiful, S., Elvira, Y, 2017; Syaiful, S., & Rulhendri, R., 2014). Along with the increasing number of motorized vehicles in the city of Bandung, the need for parking is also increasing (Syaiful, 2015; Syaiful, ST, MT, 2016). The definition of "parking" in general is a condition where the vehicle is not moving permanently (Tobing, David ML, 2007). Public service is an activity or series of activities in the context of fulfilling service needs following statutory regulations for every citizen and resident for goods, services, and or administrative services provided by public service providers. The service standard is a benchmark that is used as a guideline for service delivery and a reference for evaluating service quality as an obligation and promise of administrators to the community in the framework of quality, fast, easy, affordable, and measurable services (Law of the Republic of Indonesia, 2009). The parking index is the percentage of the accumulated number of vehicles at a certain time interval divided by the available parking space multiplied by 100%. The highest parking index is obtained from the comparison between parking accumulation and parking capacity. The magnitude of this parking index will indicate whether the parking area is problematic or not (Warpani, S, 1990). Parking characteristics are intended as basic characteristics that provide an assessment of parking services and parking problems that occur in the study area. Based on the parking characteristics, it will be known the parking conditions that occur in the study area such as parking volume, parking accumulation, turnover packing and occupancy rate, and parking index. Information about parking characteristics is needed when we plan a parking lot (Z, Tanmin, Ofyar, 1997).

#### 2. METHOD

The third stage is the processing of data analysis with the Microsoft Excel program. In general, the stages of research activities carried out are shown in Figure 1 below.

							_				
					M	JLAI					
							_				
					STUDI LI	TERATUR					
					PENGAME	BILAN DATA					
						1					
Data Prin	her:						Data Sek	under :			
- Data Ku	esioner An	gket Manu	ual dan Onlin	e			- Luas Lak	nan Parkir u	untuk mene	entukan SR	D Motor
- Data Jur	nlah Kenda	araan Sepe	da Motor	-							
Keluar	dan Masuk	Lokasi Par	kir								
					PENGOLA	HAN DATA				1	
	Diagram F	Prosentase	5					Microsof	t Excell		
	- Akumula	asi Parkir						- Data Ha	sil Karakter	istik Parkir	
	- Tingkat	Kepuasan	Pelayanan					- Data Hasil Kuesioner			
					KESIMPL	JLAN DAN					
					SA	RAN					
					PRIN	T HASIL					
					SEL	ESAI	_				

Figure 1. Research Methods

The following are research locations and study areas, namely the parking area around the UNIKOM campus shown in Figure 2.



Figure 2. Location

#### 3. RESULTS AND DISCUSSION

The results of the research on the parking space area at the research location are divided into two, namely motorcycle parking A and B. The method used in this study uses the Parking Characteristics Analysis Method and Service Satisfaction Level Analysis. It is assumed that the survey was carried out on October 3, 4, 5, 6, 7, 8, and 9 2022. The survey was carried out using the Cordon Count step, namely direct observation in the field with observation posts. This survey was conducted from 06:00 to 22:00. Parking characteristics are intended as basic characteristics that provide an assessment of parking services and parking problems that occur in the study area. Based on parking characteristics, it will be known the parking conditions that occur in the study area such as parking capacity, parking accumulation,

To determine the parking capacity using the determination of parking space units (SRP).

- Motorcycle parking A = Area of Parking Area : (0.75x2) = 280/1.5 = 186 SRP
- Motorcycle Parking B = Area of Parking Area : (0.75x2) = 320/1.5 = 213 SRP

Table 1 below shows the average results of the study days for the peak parking accumulation data at the study sites.

NO	TANGGAL			WAKTU
NU	TANGGAL	PARKINIUTUR		PUNCAK
1	03-Okt-22	PARKIR A	121	10.00-16.00
		PARKIR B	126	10.00-16.00
2	04-Okt-22	PARKIR A	125	10.00-16.00
		PARKIR B	147	10.00-16.00
3	05-Okt-22	PARKIR A	134	10.00-16.00
		PARKIR B	130	10.00-16.00
4	06-Okt-22	PARKIR A	102	10.00-16.00
		PARKIR B	96	10.00-16.00
5	07-Okt-22	PARKIR A	166	10.00-16.00
		PARKIR B	196	10.00-16.00
6	08-Okt-22	PARKIR A	65	10.00-16.00
		PARKIR B	64	10.00-16.00
7	09-Okt-22	PARKIR A	28	10.00-16.00
		PARKIR B	43	10.00-16.00
	Maks	PARKIR A	186	SRP
		PARKIR B	213	SRP

Table	A. Maxi	mum mo	otorcycle	parking	accum	ulation

Based on seven days of observation, the maximum accumulation occurred on Friday, October 7, 2022, with 166 motorcycles in motorcycle parking A and motorcycle parking B also occurred on Friday, October 7, 2022, with 196 motorbikes. The results of Parking Space Usage in terms of Parking Turn Over, below show the turnover rate and level of vehicle parking usage.

NO	TANGGAL	KAPASITAS		WAKTU
NO	TANGOAL	PARKIR		PUNCAK
1	03-Okt-22	186	121	0,650
2	04-Okt-22	186	125	0,670
3	05-Okt-22	186	134	0,720
4	06-Okt-22	186	102	0,550
5	07-Okt-22	186	166	0,890
6	08-Okt-22	186	65	0,350
7	09-Okt-22	186	28	0,150
			JUMLAH	3,980
			RATA-RATA	0,569

### Table B. Parking TurnOver Value for Motorcycle Parking A



From the table above it can be seen that the average parking turnover is 0.569 for the sample data at maximum parking time.

	Table C.	Parking Turnove	er Value fo	or Motorcycle	Parking B
C A 1	KAPASITAS		WAKTU		Parkir
GAL	PARKIR		PUNCAK		

NO	TANGGAL	KAPASITAS PARKIR	VOLUME PARKIR	WAKTU PUNCAK
1	03-Okt-22	213	126	0,59
2	04-Okt-22	213	147	0,69
3	05-Okt-22	213	130	0,61
4	06-Okt-22	213	96	0,45
5	07-Okt-22	213	196	0,92
6	08-Okt-22	213	64	0,30
7	09-Okt-22	213	43	0,20
			JUMLAH	3,76
			RATA-RATA	0,53



From the table above it can be seen that the average parking turnover is 0.537 for the sample data at maximum parking time.

NO	HARI	TANGGAL	VOLUME PARKIR
1	SENIN	03-Okt-22	121
2	SELASA	04-Okt-22	125
3	RABU	05-Okt-22	134
4	KAMIS	06-Okt-22	102
5	JUMAT	07-Okt-22	166
6	SABTU	08-Okt-22	65
7	MINGGU	09-Okt-22	28

#### Table D. Daily Volume of Motorcycle Parking A



The table above shows that the highest volume occurred on Friday 7 October 2022 with 166 motorcycles.

NO	HARI	TANGGAL	VOLUME PARKIR
1	SENIN	03-Okt-22	126
2	SELASA	04-Okt-22	147
3	RABU	05-Okt-22	130
4	KAMIS	06-Okt-22	96
5	JUMAT	07-Okt-22	196
6	SABTU	08-Okt-22	64
7	MINGGU	09-Okt-22	43

Table F	. Dail	v Volume	of Motorcy	vcle Park	ing R
I abic L	. Dan	y volunic		y cic i ai n	



The table above shows that the highest volume occurred on Friday 7 October 2022 with 196 motorcycles.

Table F and Table G show the recap of the average vehicle parking index in the study locations.

NO	TANCCAL	KAPASITAS	VOLUME	INDEKS
NO	TANGGAL	PARKIR	PARKIR	PARKIR
1	03-Okt-22	186	121	65,05%
2	04-Okt-22	186	125	67,20%
3	05-Okt-22	186	134	72,04%
4	06-Okt-22	186	102	54,84%
5	07-Okt-22	186	166	89,25%
6	08-0kt-22	186	65	34,95%
7	09-0kt-22	186	28	15,05%

#### Table F. Motorcycle Parking Index A

Based on the table above, the maximum parking index at the maximum peak time on Monday to Sunday is less than 100%. From the parking value obtained, it turns out that the motorbike parking area in A can accommodate parking needs.

NO	TANGGAL	KAPASITAS	VOLUME	INDEKS
		PARKIR	PARKIR	PARKIR
1	03-Okt-22	213	126	59,15%
2	04-Okt-22	213	147	69,01%
3	05-Okt-22	213	130	61,03%
4	06-Okt-22	213	96	45,07%
5	07-Okt-22	213	196	92,02%
6	08-0kt-22	213	64	30,05%
7	09-Okt-22	213	43	20,19%

#### Table G. Motorcycle Parking Index B

Based on the table above, the maximum parking index at the maximum peak time on Monday to Sunday is less than 100%. From the parking value obtained, it turns out that the motorbike parking area in A can accommodate parking needs.

#### **Determination of the Number of Samples**

Table H. Basic Statistical Calculations to Look for Correlation

NO	Х	F	Fx	<b>X</b> <sup>2</sup>	<b>f</b> X <sup>2</sup>
1	0,2	5	1,00	0,04	0,20
2	0,4	6	2,40	0,16	0,96
3	0,6	5	3,00	0,36	1,80
4	0,8	6	4,80	0,64	3,84
5	1	8	8,00	1,00	8,00
	JUMLAH	30	19,20	2,20	14,80

There is a total sample of 30 questionnaires. One of the samples above was searched for descriptive, namely the mean and standard deviation, from the maximum number of parking A=186 + B=213 the total was 399 SRP or each average was  $399/2 = 199.5 \approx 200$ . Direct questionnaire (OFFLINE) 36 % stated that they were satisfied with parking outside UNIKOM's land because it was easy and affordable

The direct questionnaire at the UNIKOM parking lot includes:

# a. TANGIBLE INDICATORS.

- Parking attendant service ability = 35% satisfied
- The ability of parking attendants to arrange vehicles = 49% satisfied
- Reliability of parking area facilities = 39% satisfied
- Reliability of parking attendants in the parking area = 47% satisfied
- All tangible variables are answered satisfied. The indicator with the smallest percentage of the parking attendant's ability to serve.

# b. RELIABILITY INDICATORS.

- Cleanliness of the parking area = 43% satisfied
- The appearance of parking attendants (neat and polite) = 33% satisfied
- Accuracy in managing parking = 50% satisfied
- Interior parking area = 46% unsatisfied
- All variables from the average percentage of reliability are less satisfied. The indicator with the smallest percentage is the appearance of parking attendants in their duty to wear clothes that are always neat and polite.

# c. DIMENSIONS OF RESPONSIVENESS INDICATORS.

- Ease of parking the vehicle = 40% dissatisfied
- Fast and precise transactions = 39% satisfied
- Officers' initiative to help parkers when busy = 43% dissatisfied
- Parking attendants express the impression of being busy = 44% unsatisfied
- All variables from the average responsiveness percentage are less satisfied. The indicator with the smallest percentage of all transactions is served or carried out quickly and precisely.

# d. DIMENSIONS OF ASSURANCE INDICATORS

- Parking security system = 47% unsatisfied
- Politeness of parking attendants = 43% dissatisfied
- Friendliness of parking attendants = 48% dissatisfied
- Honesty of parking attendants = 50% satisfied

• All variables from the average assurance percentage are satisfied. The indicator with the smallest percentage of parking attendant courtesy.

# e. Empathy Indicator Dimensions

- Greetings from the parking attendant at the start of the service = 38% dissatisfied
- Thank you at the end of the service = 38% unsatisfied
- Ease of parking space = 35% unsatisfied
- Convenience of parking area = 35% satisfied
- All variables from the average empathy percentage are less satisfied. The indicator with the smallest percentage is the ease of finding space for parking.

# f. ONLINE QUESTIONNAIRE

- 63% said they were satisfied parking outside UNIKOM's land because it was practical and affordable
- The online questionnaire at the UNIKOM parking lot includes:

# g. Tangible Indicators

- Parking attendant service ability = 52.6% satisfied
- The ability of parking attendants to arrange vehicles = 52.6% satisfied
- Parking area reliability = 52.5% satisfied
- Reliability of parking attendants in the parking area = 42.1% satisfied
- All tangible variables are satisfied. The indicator with the smallest percentage is the reliability of parking attendants in serving the density of parking areas.

# h. Reliability Indicators

- Cleanliness of the parking area = 52.6% satisfied
- The appearance of parking attendants (neat and polite) = 42.1% dissatisfied
- Accuracy in managing parking = 68.4 satisfied
- Interior parking area = 52.6% satisfied
- All variables from the average percentage of reliability are satisfied. The indicator with the smallest percentage is the appearance of parking attendants in charge of wearing clothes that are always neat and polite.

# i. Responsiveness Dimension Indicator

- Ease of parking the vehicle = 47.4% satisfied
- Fast and precise transactions = 31.6% are not satisfied
- The officer's initiative to help parkers when busy = 36.8% satisfied
- Parking attendants express the impression of being busy = 47.4% satisfied
- All variables from the average percentage of responsiveness are satisfied. The indicator with the smallest percentage of all transactions is served or carried out quickly and precisely.

# j. Dimension Assurance Indicator

- Parking security system = 36.8% unsatisfied
- Politeness of parking attendants = 47.4% satisfied
- Friendliness of parking attendants = 52.6% satisfied
- Honesty of parking attendants = 68.4% satisfied
- All variables from the average assurance percentage are satisfied. The indicator with the smallest percentage is a good parking security system.

# k. Empathy Indicator Dimensions

Greetings from the parking attendant at the start of the service = 42.1% dissatisfied

- Thank you at the end of the service = 36.8% satisfied
- Ease of parking space = 42.1% satisfied
- Convenience of the parking area = 47.4% satisfied
- All variables from the average empathy percentage are satisfied. The indicator with the smallest percentage of parking attendants always says thank you at the end of the service.

#### **Preliminary Results**

- The parking area used for motorbikes parking area A is 280 m2 with 186 SRP and for motorbikes, parking B is 320 m2 with 213 SRP
- From the results of the seven days of observation, the maximum accumulation occurred on Friday 7 October 2022 as many as 166 motorbikes in motorcycle parking A and motorcycle parking B also occurred on Friday 7 October 2022 with 196 motorbikes.
- With the use of parking space in terms of parking turnover on motorbike parking A and parking B, parking needs have sufficient capacity. The maximum number of vehicle volumes in motorcycle parking A reached 166 motorcycles and 196 motorcycles in motorcycle parking B respectively on Friday. The maximum parking index in motorcycle parking A and B at the maximum peak time on Monday to Sunday is less than 100%.
- The manual questionnaire shows 36% of respondents saying that parking outside Unikom is more practical and affordable for motorbike users while online shows 63% of respondents saying that parking at Unikom is more practical and easier for motorbike users.

#### **Forecasting Model Using Regression Analysis**

Forecasting using regression analysis has two variables, namely the dependent variable (Y) and the independent variable (x) whose relationship is as follows: Y = f(x)

In this study, the dependent variable is the number of parking vehicles obtained from the survey results which will later become what is predicted to occur. While the independent variables are the floor area of the campus, available lecture halls, occupied lecture halls, number of staff on duty, and available parking lots, which cause and influence the number of parked vehicles. The number of variables can be one or more than one. From each independent variable, there is the possibility of separately or jointly influencing the dependent variable. Therefore, from every possibility, a forecasting model is created. The number of possible forecasts is obtained by the combination formula for the independent variables, namely: Number of combinations = 2i - 1

Where i = the number of independent variables reviewed.

Forecasting with the method of regression analysis can be divided into two types, namely:

- 1. Linear (simple) and non-linear regression analysis
- 2. Multi-regression analysis (multiple)

#### Linear Regression Analysis of Motorcycle Parking Needs

Motorcycle Parking Needs Model With Simple Regression In Table 28 it can be seen that the relationship between the need for motorcycle parking spaces and the variables (floor area, net floor area, service floor area, number of students, number of Samuk exits) is not significant. This can be seen from the significant number F (Sig. F) which is greater than 0.05 in the table. Meanwhile, the need for motorbike parking space with variables (number of lecturers and permanent employees, number of doors, number of students) is very significant.

because it has a coefficient value of Sig.  $F \le 0.05$ . The best regression model was chosen based on the smaller standard error value and the largest coefficient of determination (R2). Based on these criteria, the regression model chosen is the relationship between the number of lecturers and employees (X5) and the average accumulation of motorcycles with a standard error value = 67.369 and a coefficient of determination (R2) = 0.873 and Sig F = 0.006. So the regression model for motorcycle parking needs is a regression model with the equation Y=-24.497+2.059(X5) and the coefficient of determination (R2)=0.873. This shows that 87.3% of the existing data variables can be explained by this model

Kriteria	Luas	Luas	Luas	Jumlah	Jumlah	Jumlah	Jumlah	Jumlah
	lantai	lantai	lantai	Karyawan	Karyawan	titik	mesin	Pengun
	(m²)	Netto	service	Tetap	tidak tetap	tempat	kasir	jung
	(X1)	(m²)	(m²)	(X4)	(X5)	kasir	(X7)	(X8)
		(X2)	(X3)			(X6)		
R	0,259	0,319	0,118	0,483	0,934	0,809	0,883	0,891
R <sup>2</sup>	0,067	0,102	0,014	0,234	0,873	0,655	0,779	0,793
Α	226,450	177,363	261,756	-27,778	-24,497	-139,965	-156,600	-68,421
tA-hit	1,173	0,789	2,029	-0,111	-0,430	-0,833	-1,388	-0,782
Sig.A	0,306	0,474	0,112	0,917	0,689	0,427	0,238	0,478
В	0,002	0,014	-0,016	1,232	2,059	80,778	23,153	0,059
tB-hit	0,060	0,282	-0,239	1,104	5,242	2,495	3,689	3,823
Sig.B	0,955	0,792	0,823	0,332	0,006	0,067	0,021	0,019
F	0,004	0,080	0,057	1,219	27,481	6,227	13,610	14,614
Sig.F	0,955	0,792	0,823	0,332	0,006	0,067	0,021	0,019
Std.Error	188,915	187,148	187,668	165,461	67,369	118,197	90,077	87,612

Tabel 28. Hasil Analisis Regresi Linier Terhadap Kebutuhan Parkir Sepeda Motor

#### Outputs

No	Variabel	Kebutuhan Parkir (Satuan Ruang Parkir atau SRP)
1.	Luas lantai (m <sup>2</sup> )	0,179 SRP
2.	Luas lantai netto (m <sup>2</sup> )	0,221 SRP
3.	Luas lantai service (m <sup>2</sup> )	1,045 SRP
4.	Jumlah karyawan tetap (orang)	3,696 SRP
5.	Jumlah karyawan tidak tetap (orang)	6,205 SRP
6.	Jumlah titik tempat kasir (buah)	162,250 SRP
7.	Jumlah mesin kasir (buah)	44,568 SRP
8.	Jumlah pengunjung (orang)	0,153 SRP

# 4. CONCLUSIONS

The survey results were analyzed using the Microsoft Excel program. Data collection by recording the number of motorized vehicles entering and exiting at a certain time. The parking capacity for use in calculating the parking capacity survey (existing) is 176 SRP for motorbike parking in place A and 186 SRP for motorbike parking in place B. The results show that the maximum volume of parking reaches 188 motorbikes for parking A and 190 motorbikes for parking B. The highest accumulation reached 190 motorbikes for motorcycle A parking and 305 for parking B. The use of parking space in terms of Parking turnover reached an average of 0.964 for Parking A and 1,416 for Parking B.

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