

This dataset is provided by Mitramas Infosys Global

Outline



Data Preprocessing

Do data transformation and cleaning in power query



Create Metrics

Do the quantitative assessment



Dashboarding

Do the visualizations for all metrics and data to easily find out the insight

Data Preprocessing

Data is served in excel format, The first sheet is the "SEWA ATM" dataset. I deleted the "Masa Sewa" column because it has too many null values and I don't know which column I can use to help me fill the null values. Communication with stakeholder is very important step, since I can't do it so I just try my best. For the Delivery column, I remove the canceled order. In the "Tanggal request" column there are some null values, but in delivery column it says that the request is delivered, so I fill the null values using the previous date. The last I unpivoted the period and "Tagihan" column.

		ITRAMAS INFOSYS GLOBAL Sewa ATM											
5	NO	Tanggal Request	Nama LOKASI	КОТА	MASA SEWA	Delivery	Туре	Jatuh tempo	Tagihan			Tagihan	
6		l			(TAHUN)			Tag 3-]]	[2		
7	~	▼	_	▼	▼	•	_	~	No. Inv▼	Period 💌	JT48 ▼	No. Inv. ▼	Period
873	866	29-Jan-2018	UNJ PASCA SARJANA (TEMPORE	TEMPORER	1 BULAN		529	1-Feb	042-02-18	Feb-18			
874	867	25-Jan-2018	PEMPROV KEPULAUAN RIAU	TANJUNG PINANG	3	8-Mar-2018	529EPP7CL	1-Apr	113-04-18	Apr-18		125-05-18	May-1
875	868	23-Nov-2012	CABANG SUKABUMI (REPLACE)	SUKABUMI RPC	3	8-Mar-2018	529EPP5W7	1-Mar	087-03-18	Mar-18		103-04-18	Apr-1
876	869	20-Apr-2018	PURI TELUK JAMBE 2	KARAWANG	3	28-Jun-2018	529EPP5W7	1-Aug	188-08-18	Aug-18		207-09-18	Sep-1
877	870	26-Apr-2018	HOTEL AYOLA	PEKANBARU	3	25-May-2018	529EPP5W7	1-Jul	174-07-18	Jul-18		188-08-18	Aug-1
878	871	11-May-2018	RSIA RESTU BUNDA	Bandar Lampung cancel	3								
879	872	24-May-2018	KOPERASI KEDIRI MEKAR PT. G	KEDIRI	3	2-Aug-2018	529EPP5W7	1-Oct	238-10-18	Oct-18		259-11-18	Nov-1
880	873	14-Aug-2018	UNIVERSITAS ESA UNGGUL CITE	JKT-HUB V	3	11-Oct-2018	529EPP5W7	1-May	122-05-19	May-19			
881	874		RS Graha Permata Ibu / ALFAMIDI	JKT-HUB VIII	3	24-Aug-2018	529EPP5W7	1-Sep	206-09-18	Sep-18		237-10-18	Oct-1
882	875		BOGOR NIRWANA RESIDENCE	BOGOR	4	3-Sep-2018	GRG	1-Sep	211-09-18	Sep-18		242-10-18	Oct-1
883	876	22-May-2013	KK RAWAMANGUN	JKT-HUB VII	4	4-Sep-2018	GRG	1-Sep	210-09-18	Sep-18		241-10-18	Oct-1
884	877	27-Aug-2018	KCP KEMANG	JKT-HUB III	3	7-Sep-2018	529EPP5W7	1-Sep	206-09-18	Sep-18		237-10-18	Oct-1
885	878	21-Sep-2010	KK PLN MENTENG	JKT-HUB IV	4	6-Sep-2018	GRG	1-Sep	210-09-18	Sep-18		241-10-18	Oct-1
886	879	6-Sep-2018	APOTIK KIMIA FARMA PAAL 2	MANADO	3		529EPP5W7	1-Jan	016-01-19	Jan-19		043-02-19	Feb-1
887	880	16-Jan-2018	KCP S PARMAN 2	4	12-Sep-2018	GRG	1-Sep	210-09-18	Sep-18		241-10-18	Oct-1	
	() h	SEWAATM Data Aktifitas	(+)			: 1							· ·

ATM Loan dataset before preprocessing

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_	NO _{→↑}	Tanggal Request	Lokasi ▼	кота 🔻	Delivery	Type 🔻	Jatuh tempo	No. Invoice	Periode 🔻
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	254-12-13	Sunday, April 1, 2018
48	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	011-01-11	Saturday, September
铝	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	054-02-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	054-03-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	103-04-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	125-05-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	163-06-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	184-07-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	208-08-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	227-09-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	250-10-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	278-11-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	306-12-11	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	008-01-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	042-02-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	066-03-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	091-04-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	112-05-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	133-06-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	154-07-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	180-08-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20	190-09-12	Saturday, September
	1	Tuesday, September 21, 2	PLN KOTA	JKT-HUB II	Thursday, October 7, 2010	522	Tuesday, October 1, 20:	209-10-12	Saturday, September
	1	Tuesday Sentember 21 2	ΡΙΝ ΚΟΤΔ	IKT-HUB II	Thursday October 7 2010	522	Tuesday October 1 201	235-11-12	Saturday Sentember

ATM Loan dataset after preprocessing

Data Preprocessing

The second sheet is the activity dataset. I deleted the "nomor tiket", status and "Pilihan" columns. I simply delete columns that contain all null values.

Data aktivt	as ATM								-	
No.	Tanggal	Nomor	ATM ID	Lokasi	Jenis Laya	Laporan Kerusakan	Pekerjaan	Nomor Tik	Penggantian Sparepart	Jumlah Par S
	1 16 Juli 2020	88826	ATM00001	RUANG UAT	Error	Hardware	Check & Cle	ea 2007-100	Hard Disk	1
	2 03 Maret 202	86010	ATM1200290	PLN AHMAD	Error	Hardware	Check & Cle	ea 2003-028	CCA Dispenser (CCA Kit Presenter Ctrl.) 49-74724	1
									EPP5(BSC),LGE,STTL,ENG(AU),QZ1,BLANK,X,I,C	1
	3 02 Septembe	90681	ATM1200440	GRAHA ENE	PM 1	Preventive Maintenance	Check & Cle	ea		
	4 09 Septembe	89466	ATM1200470)14	Installation	Installation	Instalasi AT	M		
	5 29 Maret 202	87602	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	6 27 April 2020	87445	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	7 24 November	89385	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	8 24 Agustus 2	87409	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	9 22 Juni 2020	87425	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	10 21 Septembe	87604	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	11 27 Juli 2020	87417	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	12 26 Mei 2020	87608	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	13 22 Oktober 20	89388	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	14 27 Januari 20	87621	ATM2000200	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Cle	ea		
	15 30 Maret 202					Preventive Maintenance	Check & Cle	ea		
	16 25 November			BKP AR HAK			Check & Cle	ea		
	17 28 April 2020	87439	ATM2000200	BKP AR HAP	PM pertama	Preventive Maintenance	Check & Cle	ea		
	18 16 Desember					Preventive Maintenance	Check & Cle	ea		
	19 24 Septembe					Preventive Maintenance	Check & Cle	ea		
	20 23 Juni 2020			BKP AR HAP			Check & Cle	ea		
	21 19 Juli 2020			BKP AR HAP			Check & Cle	ea		
	22 27 Mei 2020	87438	ATM2000200	BKP AR HAP	PM pertama	Preventive Maintenance	Check & Cle	ea		

Activity dataset before preprocessing

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_	No. _{+↑}	Merged ▼	Nomor 🔻	ATM ID 🔻	Lokasi	Jenis Layanan 🔻	Laporan Kerusakan	Pekerjaan Dilakukan	Penggan
圃	1	Thursday, July 16, 2020	88826	ATM00001	RUANG UAT DPTI	Error	Hardware	Check & Clean all devices, replace / no replace, test OK.	Hardno replaceDiskno repli ^
48	2	Tuesday, March 3, 2020	86010	ATM120029008	PLN AHMAD YANI	Error	Hardware	Check & Clean all devices, replace EPP5 & CCA DISPENSER, test OK.	CCAno replaceDispenserno
铝	3	Wednesday, September 2, 2020	90681	ATM120044005	GRAHA ENERGY	PM 1	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	5	Sunday, March 29, 2020	87602	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	6	Monday, April 27, 2020	87445	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	7	Tuesday, November 24, 2020	89385	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	8	Monday, August 24, 2020	87409	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	9	Monday, June 22, 2020	87425	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	10	Monday, September 21, 2020	87604	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	11	Monday, July 27, 2020	87417	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	12	Tuesday, May 26, 2020	87608	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	13	Thursday, October 22, 2020	89388	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	14	Monday, January 27, 2020	87621	ATM20002001	BKP MEDAN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	15	Monday, March 30, 2020	87606	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	17	Tuesday, April 28, 2020	87439	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	18	Wednesday, December 16, 2020	89376	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	19	Thursday, September 24, 2020	87403	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	20	Tuesday, June 23, 2020	87424	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	21	Sunday, July 19, 2020	87418	ATM20002002	BKP AR HAKIM MDN	PM pertama	Hardware	Check & Clean all devices, no replace, test OK.	no replace
	22	Wednesday, May 27, 2020	87438	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	24	Tuesday, January 28, 2020	87623	ATM20002002	BKP AR HAKIM MDN	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	25	Monday, November 23, 2020	89383	ATM20002003	KCP BINJAI	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
	26	Wednesday, April 29, 2020	87440	ATM20002003	KCP BINJAI	PM pertama	Preventive Maintenance	Check & Clean all devices, no replace, test OK.	no replace
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Activity dataset after preprocessing

Metrics

Calculated metrics to map client by city and location. See the most used ATM Type and client order by year.

Dashboarding

