

Original Data Dictionary

Every column of every file Binzagr sent, exactly as received: how it is stored, what values it holds and what it means.

Version 2.0 • 22 October 2026 • Files received 20 October 2026 (systems extracted 19-20 October 2026); Binzagr's four WMS mapping files received 22 October 2026 (section 10)
Scope: the raw files only. Cleaning is documented in document 2, simulation in document 3, data requests in document 4.

4,604,674 WMS scan rows in 8 monthly CSV files	9 + 4 sheets in 5 Excel workbooks, plus 4 WMS mapping files (22 Oct)	330 columns documented (318 with a header)	165 columns carry no information (empty or one constant value)
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1. How to read this dictionary

- **Stored as:** how the value sits in the file. The CSV files hold only text, so the format is described (e.g. "text (dd/mm/yyyy)"). Excel cells are reported as number, text or date as Excel typed them.
- **Filled:** share of rows with a real value. Empty cells and the literal text "**NULL**" (which the source systems wrote instead of leaving cells empty) both count as missing.
- **Distinct:** number of different real values. **Values seen:** every value with its row count when there are six or fewer, otherwise the range and the most common value or examples.
- **Meaning:** what the column stands for. **Basis** says how sure we are (legend below). Nothing in this document was changed from the files; numbers are counts on the raw files.
- Personal and identifying data (names of people, phone numbers, e-mails, CR / VAT / bank numbers) is described but its values are never reproduced. Arabic text is shown as [Arabic text] because the document font cannot shape Arabic script.

Basis	Meaning	Columns
Verified	Confirmed by a test on the data (e.g. a pattern holds on 100% of rows, or two files join completely).	61
Binzagr	Stated or defined by Binzagr (e.g. the payment-term descriptions they sent).	14
Inferred	Inferred from the column name and its values. Plausible, not confirmed.	73
Ask Binzagr	Meaning unknown and it matters: listed for Binzagr to confirm (document 4).	17
Empty	Empty in this extract: no values, so no impact on any analysis.	97
Constant	One value in every row: carries no information in this extract.	68

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2. Files received

Thirteen data files arrived on 20 October (eight monthly WMS CSVs and five Excel workbooks with nine sheets), plus an earlier five-file subset for Drinks and Lipton; four WMS mapping files followed on 22 October (section 10). E-mails and a screenshot came with them and are not data. Row counts exclude header rows.

#	File as received	Sheet	Rows	Cols	One row is	Period / as of	Section
1	Jeddah <Month> 2026.csv (8 files: "Feburary" (sic), March ... September)	-	4,604,674	19	one WMS scan / transaction	1 Feb - 30 Sep 2026; each file also repeats day 1 of the next month	3
2	Sales_Return - Riyadh.xlsx	Sales Details	325,544	11	one invoice line	1 Mar - 20 Oct 2026	4.1
3	Sales_Return - Riyadh.xlsx	Return From Customer	7,170	11	one return line	1 Mar - 20 Oct 2026	4.2
4	Sales_Return - Riyadh.xlsx	UOM_CD Conversion Factor	45,891	3	one product x unit	current	4.3
5	Sales_Return - Riyadh.xlsx	Product Master	23,645	2 (+6 blank)	one product (lookup list)	current	4.4
6	Customer Master.xlsx	Sheet1	18,809	119	one customer (outlet)	snapshot 19-20 Oct 2026	5
7	Product Master & Grouping.xlsx	Product Master	23,497	61 (+6 blank)	one product (7 rows damaged)	snapshot 20 Oct 2026	6.1
8	Product Master & Grouping.xlsx	Product Grouping	4,285	11	one hierarchy node	snapshot 20 Oct 2026	6.2
9	Salesman Master.xlsx	Sheet1	119	54	one van-sales rep	snapshot 20 Oct 2026	7
10	Payment Term.xlsx	INVTERM_CD	28	2	one payment-term code	current	8
11	Drinks and Lipton Tea Data (5 files, 8 sheets)	various	see 9	same	same layouts as 2-10	first send	9
12	Trans_Log_Mapping.xlsx (22 Oct)	Export	88	7	one transaction code	current	10.1
13	Users_Mapping.xlsx (22 Oct)	Sheet1	32,920	9	one login in one monthly snapshot	25 Sep 2025 - 01 Oct 2026	10.2
14	Converstion_Factor.xlsx (22 Oct, sic)	Sheet1	36,859	3	one item	current	10.3
15	Sample_of_HU_ID.xlsx (22 Oct)	Export	100 (+3 footer)	19	one WMS scan (re-export)	Sep 2026	10.4

Missing-value conventions in the raw files. The sales-force exports (customer, product, salesman masters) write the text "NULL" for missing values and also leave cells empty; the WMS CSVs write "NULL". Dates of 01/01/1900 are placeholders, not real dates. Excel turned long numeric codes into scientific notation (2.10004E+11) or cut them to 15 significant digits; those values have lost digits in the file itself.

3. Jeddah WMS transaction log

Transaction log of the Jeddah warehouse management system (a Korber / HighJump-style WMS). **One row = one scan or system event:** a pallet picked, put away, loaded, counted, released from QC, or a billing event. Movements are written as **Pick / Put pairs**: the Pick leg moves the pallet from a location onto a device (a forklift or handheld "HH014"), the Put leg from the device to the destination. Eight monthly CSV files, comma-separated, UTF-8 with a byte-order mark, no quoting, 19 columns, 4,604,674 rows. Each file also contains the whole first day of the following month (65,141 duplicated rows).

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	TRAN_TYPE	text (integer code)	100%	69	69 codes from 80 to 972; most common 301 Picking (Pick) 524,679 rows (11.4%)	Numeric code of the warehouse transaction type. 69 codes; each maps to one description (3 codes have a second, renamed label). Full list in Appendix A.	Verified
2	DESCRIPTION	text	100%	72	e.g. Picking (Pick), Picking (Put), Loading (Pick)	Name of the transaction type. "(Pick)" = item taken from a location onto a device; "(Put)" = item dropped from the device at its destination; "... Per Pallet (Billing)" = billing event written for each billable pallet.	Verified
3	WH_ID	text	100%	9	most common 2100-04 (3,040,146)	Warehouse (site) where the scan happened. 2100 = Jeddah branch; the suffix is the site (2100-04 is the main site). Site names, type and size were not provided.	Inferred
4	CLIENT_CODE	text (4 digits)	90.4%	31	most common 5001 (1,524,374); text "NULL": 443,602 (9.6%)	Stock-owning client of the warehouse. 3xxx = external 3PL clients (own item codes); 5xxx / 6xxx / 8xxx / 1001 = Binzagr business units (their item codes are Binzagr product codes). Text "NULL" on order-level events and on every billing event.	Verified
5	START_TRAN_DATE	text (dd/mm/yyyy)	100%	242	2026-02-01 to 2026-09-30; busiest day 31/03/2026 (47,794 rows)	Date the transaction started, written dd/mm/yyyy. Each monthly file also repeats the first day of the next month.	Verified
6	START_TRAN_TIME	text (h:mm:ss AM/PM)	100%	86,322	e.g. 11:31:12 AM, 3:17:53 PM, 1:30:09 AM	Start time on a 12-hour clock (h:mm:ss AM/PM). Saudi local time is assumed.	Verified
7	END_TRAN_DATE	text (dd/mm/yyyy)	100%	244	2026-02-01 to 2026-10-01; placeholder 01/01/1900: 39,027 (0.8%)	Date the transaction ended. 01/01/1900 is a placeholder meaning "no end recorded" (39,027 rows, all RoS Shipment Audit).	Verified
8	END_TRAN_TIME	text (h:mm:ss AM/PM)	100%	86,315	12:00:00 AM on the 39,027 placeholder rows, otherwise any time of day; 86,315 distinct	End time (12-hour clock). 12:00:00 AM accompanies the 01/01/1900 placeholder. Task duration = end - start; it sits on the Pick leg, while Put legs and billing events are mostly 0 seconds.	Verified
9	EMPLOYEE_ID	text	100%	387	3 letters + 6 digits 63.0% of rows; 2 letters + 6 digits 19.6%; 4 letters + 6 digits 9.9%; WA.AD.NNN 2.7%; other formats 4.8%; busiest id BHAS210004 (229,450 rows)	Login / badge that performed the scan (387 ids). Standard ids = letters + 6 digits whose last digits give the home site (...210004 -> 2100-04, true for 235 of 236 standard ids); other formats include plain numbers and "WA.AD." + number; SAPImport, Admin and ShortPick are system logins. One person per id is NOT guaranteed (shared badges).	Verified
10	CONTROL_NUMBER	text	91.6%	106,053	NNNN-NNNNNNNNNN 69.7% of rows; 6 digits 12.5%; NNNN-NNNNNNNNN 5.8%; 7 digits 0.9%; other 2.7%; text "NULL" 385,811 (8.4%)	Document reference of the task. Client-prefixed order numbers "NNNN-NNNNNNNNNN" on picking, loading, shipping and consolidation (prefix = order-owning sales org; equals CLIENT_CODE only 48% of the time); 6-digit receipt / shipment numbers on receiving, reconciliation and moves; 7-digit work ids on planned moves and replenishment; short numbers on QC and adjustments.	Inferred

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
11	CONTROL_NUMBER_2	text	42.9%	53,816	LOAD + 4-6 digits 31.4% of rows; NNNN-NNNNNNNNNN 8.0%; NNNN-NNNNNNNN 1.6%; other 1.9%; text "NULL" 2,627,494 (57.1%)	Secondary reference: load id ("LOAD83266") on loading / shipping rows; purchase-order number ("5003-4500112546") on receiving rows; pallet type ("Standard Wooden Pallet", "PACK RED Pallet", "CHEP BLUE Pallet") on Close Load rows.	Inferred
12	PRODUCTION_DATE	text (dd/mm/yyyy)	97.6%	1,190	2019-07-10 to 2026-09-30; placeholder 01/01/1900: 187,177 (4.1%); text "NULL": 108,269 (2.4%)	Production date of the stock (dd/mm/yyyy). 01/01/1900 = placeholder on pallet-level events (billing, LP audit, close load); text "NULL" where no item is involved.	Verified
13	EXPIRATION_DATE	text (dd/mm/yyyy)	97.6%	1,379	2025-11-16 to 2036-05-29; placeholder 01/01/1900: 188,738 (4.1%); text "NULL": 108,269 (2.4%)	Expiry (best-before) date of the stock, same placeholders. Used for remaining shelf life at receipt (median 96%).	Verified
14	ITEM_NUMBER	text	90.7%	5,083	client + "-" + 6-digit product 81.1% of rows; client + 8-digit 3PL item 8.1%; other 1.5%; text "NULL" 428,063 (9.3%)	Item, written "client-item" (5003-201764 = client 5003, product 201764 in the Binzagr product master). A few items are pallet assets (e.g. CHEP BLUE Pallet). The prefix equals CLIENT_CODE on 100% of rows.	Verified
15	LOCATION_ID	text	94.0%	21,872	2 letters + 2 digits (OS01, HH03) 39.7%; rack slot AA-NN-NN-NN 26.4%; device HH + 3 digits 16.2%; dock door DR01-2100-04 10.7%; other 1.1%; text "NULL" 277,047 (6.0%)	From-location of the movement. Formats: rack slot "BB-26-20-01" (aisle-bay-level-position), staging lanes "OS01/OS02", dock doors "DR01-2100-04", equipment "HH014" (on Put legs the pallet comes FROM the device), pick-and-drop points "AHPD", count area "CCA_FIXED_LOC".	Inferred
16	LOCATION_ID_2	text	89.0%	25,287	2 letters + 2 digits 41.6%; device HH + 3 digits 18.9%; dock door 13.6%; truck plate 4 digits (+3 letters) 9.0%; rack slot 4.7%; other 1.2%; text "NULL" 504,697 (11.0%)	To-location of the movement, same formats (on Pick legs the pallet goes TO a device such as "HH014"). On Shipping Detail rows it holds the truck plate (4 digits, sometimes + 3 letters).	Inferred
17	HU_ID	text (number, mostly 2.10004E+11 form)	66.6%	11,847	scientific notation such as 2.10004E+11: 2,896,333 rows (62.9%); plain 4-11 digit numbers 3.7%; text "NULL" 1,540,117 (33.4%)	Handling unit = pallet / licence-plate number (12 digits, e.g. 2100040xxxxx). Excel turned every 12-digit value into scientific notation (2.10004E+11), keeping only its first 6 digits, so the column cannot identify a pallet; Binzagr's sample of 22 Oct proves it (section 10.4). Shorter ids survived.	Verified
18	HU_ID_2	text (number, mostly 2.10004E+11 form)	55.7%	11,908	scientific notation: 2,394,848 rows (52.0%); plain 4-11 digit numbers 3.7%; text "NULL" 2,041,817 (44.3%)	Second handling-unit field. Unused, per Binzagr (Badr, 21 Oct); the values present carry the same Excel damage (2,398,518 values).	Binzagr
19	TRAN_QTY	text (integer)	100%	3,608	-6,912 to 224,943 (plus 12 pallet ids such as 2.10004E+11); most common 1 (1,096,682); negative on 5,892 rows	Quantity moved or counted, in the item's unit (cases or eaches; the unit is not given). Negative on adjustments, scrap and count corrections. 12 LP Audit rows hold a pallet id (2.10004E+11) instead of a quantity.	Verified

The 69 transaction types are listed in Appendix A, sites in Appendix B and client codes in Appendix C.

4. Riyadh sales and returns workbook

Sales_Return - Riyadh.xlsx holds van-sales invoice lines and customer returns for the Riyadh cluster, 1 March to 20 October 2026, plus two lookup sheets. Sales total SAR 40,409,418.71 net over 72,633 invoices; returns SAR 1,678,644.91 over 1,104 documents. There is no line number: a line is identified by its document number and position in the sheet.

4.1 Riyadh sales lines

Sheet "Sales Details". One row = one product line of a van-sales invoice.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	number	100%	2	1000 (305,288) · 8000 (20,256)	Distributor / company code the document was issued under: 1000 (main) or 8000. What each code stands for was not provided.	Ask Binzagr
2	CUST_CD	number	100%	4,961	120010 to 826812; e.g. 332587, 335887, 333911	Customer (outlet) code. Joins to the customer master on DIST_CD + CUST_CD for 100% of lines.	Verified
3	SLSMAN_CD	text	100%	119	e.g. V93071, V93499, V95581	Van-sales rep code ("V" + 5 digits); joins to the salesman master for 100% of lines. Each rep has one van.	Verified
4	INV_NO	text	100%	72,633	e.g. CSV93267002152, CSV93267002367, CSV93267002169	Invoice number = "CSV" + the rep's 5 digits + a 6-digit running number (CSV10267003023 = rep V10267, invoice 3023). Pattern holds on 100% of lines; 72,633 invoices.	Verified
5	INV_DT	date	100%	225	2026-03-01 to 2026-10-20; e.g. 2026-05-20, 2026-05-21, 2026-05-06	Invoice date (no time of day).	Verified
6	PRD_CD	number	100%	1,009	201023 to 225195; e.g. 220567, 204743, 201764	Product code (6-digit material number); joins to the product master for 100% of codes after the rebuild.	Verified
7	UOM_CD	text	100%	2	UOS (196,876) · EA (128,668)	Unit of the quantity: UOS = unit of sale (pack / case), EA = each. Eaches per UOS come from the UOM sheet.	Inferred
8	PRD_QTY	number	100%	317	1 to 2,880; most common 1 (126,206)	Quantity in UOM_CD units.	Verified
9	PRD_SLSTYPE	text	100%	2	Sellable (305,875) · FOC (19,669)	Sellable = paid line; FOC = free of charge (net amount always 0).	Verified
10	NET_AMT	number	100%	10,186	0 to 30,329.38; e.g. 0, 43.48, 86.96	Net line amount in SAR after discounts; 0 on FOC lines (and on 12 sellable lines). Whether VAT is included was not stated.	Inferred
11	PRD_DESC	formula (text result)	100%	1,005	e.g. Igloo Mark Up 60 ml, IGLOO KULFI STICK 65ML, MOUSSY CLASSIC BOTTLE 330 ML	Product description: an Excel XLOOKUP formula into the "Product Master" sheet (the cached result is shown).	Verified

4.2 Riyadh return lines

Sheet "Return From Customer". One row = one product line returned by a customer.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	number	100%	2	1000 (5,881) · 8000 (1,289)	Distributor / company code the document was issued under: 1000 (main) or 8000. What each code stands for was not provided.	Ask Binzagr
2	CUST_CD	number	100%	671	120011 to 826767; e.g. 825074, 337217, 825033	Customer (outlet) code. Joins to the customer master on DIST_CD + CUST_CD for 100% of lines.	Verified
3	SLSMAN_CD	text	100%	93	e.g. V93499, V94123, V93500	Van-sales rep code ("V" + 5 digits); joins to the salesman master for 100% of lines. Each rep has one van.	Verified
4	TXN_NO	text	100%	1,104	e.g. RTV93499000422, RTV93528000106, RTV95559000002	Return document number = "RTV" + rep digits + running number (99.7% of lines; 18 lines use an "RTMV" variant). 1,104 documents.	Verified
5	TXN_DT	date	100%	201	2026-03-01 to 2026-10-20; e.g. 2026-08-30, 2026-04-19, 2026-04-28	Return date.	Verified
6	PRD_CD	number	100%	690	201023 to 225195; e.g. 220567, 204743, 220568	Product code (6-digit material number); joins to the product master for 100% of codes after the rebuild.	Verified
7	UOM_CD	text	100%	2	UOS (4,647) · EA (2,523)	Unit of the quantity: UOS = unit of sale (pack / case), EA = each. Eaches per UOS come from the UOM sheet.	Inferred
8	PRD_QTY	number	100%	87	0 to 2,000; most common 1 (2,283)	Quantity in UOM_CD units.	Verified
9	PRD_SLSTYPE	text	100%	2	Sellable (6,836) · FOC (334)	Sellable = paid line; FOC = free of charge (net amount always 0).	Verified
10	NET_AMT	number	100%	2,211	0 to 19,000; e.g. 0, 86.96, 528	Credit value of the returned line in SAR (positive); 0 on FOC returns.	Inferred
11	PRD_DESC	formula (text result)	100%	686	e.g. Igloo Mark Up 60 ml, IGLOO KULFI STICK 65ML, LD BELGIAN STK 100ML	Product description: an Excel XLOOKUP formula into the "Product Master" sheet (the cached result is shown).	Verified

4.3 Unit-of-measure conversion

Sheet "UOM_CD Conversion Factor". One row = one product in one unit (EA and UOS rows for most products); converts quantities into eaches.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	PRD_CD	number	100%	23,629	200291 to 900227; e.g. 200374, 200560, 201000	Product code (12 alphanumeric legacy codes are stored as text).	Verified
2	UOM_CD	text	100%	2	EA (23,452) · UOS (22,439)	Unit of measure: EA (each) or UOS (unit of sale).	Verified
3	CONV_FACTOR	number	100%	71	1 to 1,000; most common 1 (27,575)	Eaches in one unit of this UOM (EA = 1; UOS = pack size such as 6, 12 or 24).	Inferred

4.4 Product list inside the sales file

Sheet "Product Master": the lookup list behind the PRD_DESC formula. It lists 23,645 products, 148 more than the 23,497 rows of the separate product master, because 7 rows of that master were damaged in the export (section 6).

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	PRD_CD	number	100%	23,645	200291 to 900227; e.g. 210310, 210312, 224773	Product code: a full product list (23,645 codes) placed in the sales file for the description lookup.	Verified
2	PRD_DESC1	text	100%	22,710	e.g. Mob Cap Blue, ***DELISTED ARTICLE***, MC REFERENCE ARTICLE	English product description.	Verified
3	(unnamed column C)	-	0%	0	Blank in every row	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty
4	(unnamed column D)	-	0%	0	Blank in every row	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty
5	(unnamed column E)	-	0%	0	Only blanks (23,644) and text "NULL" (1)	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty
6	(unnamed column F)	-	0%	0	Only blanks (23,644) and text "NULL" (1)	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty
7	(unnamed column G)	-	0%	0	Blank in every row	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty
8	(unnamed column H)	text	<0.1%	1	N (1); blank: 23,644	Empty spare column of the sheet (a stray "NULL" or "N" in 1-2 cells).	Empty

5. Customer master

Customer Master.xlsx: the Riyadh outlet master of the sales-force system. **One row = one customer (outlet)**, key = DIST_CD + CUST_CD. 18,809 rows, 119 columns, extracted 19-20 October 2026. Many columns belong to the software template and are not used: 51 are empty and 25 hold a single value. Contact, tax and bank columns are personal or identifying data and are described without values.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	number	100%	3	1000 (8,545) · 8000 (5,949) · 2000 (4,315)	Distributor / company code: 1000, 8000 and 2000. Code 2000 (4,315 customers) has no sales in the extract. Meaning not provided.	Ask Binzagr
2	CUST_CD	number	100%	18,805	120010 to 826826; e.g. 335935, 335936, 727705	Customer (outlet) code. Unique within DIST_CD; 4 codes appear under two distributor codes.	Verified
3	BE_CUST_CD	number	100%	18,805	120010 to 826826; e.g. 335935, 335936, 727705	Back-end (ERP) customer code. Equal to CUST_CD on every row.	Verified
4	CUST_NAME	text	100%	9,584	e.g. Ninja Retail Company, HUNGERSTATION MARKET COMPANY LTD, SOUQ SAHEL	Outlet / business name, usually in English or transliterated.	Inferred
5	CUST_NAME2	text	91.5%	6,210	e.g. [Arabic text]; text "NULL": 1,602 (8.5%)	Second name, usually the Arabic trade / legal name.	Inferred
6	CUST_OPENDT	date	100%	469	2009-06-16 to 2026-10-11; most common 2024-09-05 (5,877)	Date the customer was created in the system. Three dates (2022-05-29, 2023-04-11, 2024-09-05) hold 82% of customers: bulk migrations.	Inferred
7	CUST_REGNO	number	73.9%	5,096	Personal / identifying data: values not reproduced in this document.	Commercial registration (CR) number of the business.	Inferred
8	CUST_TYPE	text	100%	2	Q (10,922) · C (7,887)	Q = credit customer, C = cash customer. Every Q customer has a payment term (INVTerm_CD); no C customer does.	Verified
9	COMMUNICATION	number	100%	1	0 (18,809)	Communication flag; 0 for every customer.	Constant
10	RELATIONSHIP	number	100%	1	0 (18,809)	Relationship flag; 0 for every customer.	Constant
11	PRICEGRP_CD	text	100%	2	R1 (18,808) · L1 (1)	Price group (price list) of the customer: R1 for all but one (L1).	Inferred
12	DIST_PRICEGRP_CD	-	0%	0	Text "NULL" in every row	Distributor-level price group.	Empty
13	BILL_METHOD	-	0%	0	Text "NULL" in every row	Billing method.	Empty
14	SUBDIST_IND	-	0%	0	Text "NULL" in every row	Sub-distributor indicator.	Empty
15	CUST_HIER1	number	100%	6	10 (18,436) · 30 (305) · 20 (47) · 40 (11) · 50 (8) · 60 (2)	Customer hierarchy level 1 (2 digits): 10 = 98% of customers; also 20-60. Names not provided (see Appendix D).	Ask Binzagr
16	CUST_HIER2	number	100%	20	10103 to 60608; most common 10161 (12,168)	Hierarchy level 2 (5 digits = level 1 + 3 digits, nesting verified), e.g. 10161, 10160, 10164. 20 codes; official names not provided.	Ask Binzagr
17	CUST_HIER3	number	100%	39	1010862 to 60608613; most common 10161173 (9,513)	Hierarchy level 3 (level-2 code + 2-3 more digits, nesting verified), e.g. 10161173. 39 codes; names not provided.	Ask Binzagr
18	BILLTO_CD	number	100%	18,805	120010 to 826826; e.g. 335935, 335936, 727705	Bill-to customer. Equal to CUST_CD on every row (no head-office billing).	Verified
19	KEYACC_CD	number	5.4%	7	619 to 650; most common 623 (901); text "NULL": 17,791 (94.6%)	Key-account (chain) code, e.g. 623 for 901 outlets; filled for 5% of customers.	Inferred
20	KEYACCREG_CD	-	0%	0	Text "NULL" in every row	Key-account region.	Empty

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
21	ADDR_1	text	6.8%	893	e.g. ST AL SHAIKH EBRAHIM, ST. AL SHAIKH EBRAHI, BATHA; blank: 17,523	Street address line (7% filled).	Inferred
22	ADDR_2	text	<0.1%	3	[Arabic text] (1) · AZIZIA (1) · ARBAEEN STREET (1); blank: 18,806	Address line 2 (3 values).	Inferred
23	ADDR_3	number / text	<0.1%	2	0 (6) · [Arabic text] (1); blank: 18,802	Address line 3 (almost empty).	Inferred
24	ADDR_4	number / text	<0.1%	2	0 (6) · [Arabic text] (1); blank: 18,802	Address line 4 (almost empty).	Inferred
25	ADDR_5	text	79.0%	87	most common [Arabic text] (12,960); blank: 3,942	City / area, mostly Riyadh written in Arabic or English.	Inferred
26	ADDR_POSTAL	number	96.2%	673	1,111 to 87,311; e.g. 12345, 12626, 12633; blank: 721	Postal code (5 digits). 12345 is used for 2,890 customers and looks like a default value.	Inferred
27	CONT_PR	text	35.2%	1,336	Personal / identifying data: values not reproduced in this document.	Contact person.	Inferred
28	CONT_NO	number	90.0%	5,834	Personal / identifying data: values not reproduced in this document.	Contact phone number.	Inferred
29	CONT_NO_EXT	number	93.9%	2	Personal / identifying data: values not reproduced in this document.	Phone extension / flag (0 or 1).	Inferred
30	ADD_CONT_NO	-	0%	0	Personal / identifying data: values not reproduced in this document.	Additional contact number.	Empty
31	MOBILE_NO	number	23.4%	2,992	Personal / identifying data: values not reproduced in this document.	Mobile number.	Inferred
32	CONT_FAXNO	number	0.6%	104	Personal / identifying data: values not reproduced in this document.	Fax number.	Inferred
33	CONT_EMAIL	text	50.4%	20	Personal / identifying data: values not reproduced in this document.	E-mail address (mostly shared company e-invoice mailboxes).	Inferred
34	INVTerm_CD	text	58.1%	5	ZC04 (10,316) · ZC06 (445) · ZC02 (156) · ZC13 (4) · ZC09 (1); text "NULL": 7,887 (41.9%)	Invoice payment-term code (defined in Payment Term.xlsx, Appendix E). Credit customers only; ZC04 = 30 days from month end for 94% of them.	Binzagr
35	CUST_CRDLMT	number	58.1%	7	1 to 9,999,999; most common 9999999 (10,612); text "NULL": 7,887 (41.9%)	Credit limit in SAR. 9,999,999 = "no limit" placeholder for 97% of credit customers; blank (NULL) for cash customers.	Inferred
36	OUTSTANDING_BAL	number	100%	1,627	-51,440.21 to 60,585.71; most common 0 (17,090)	Receivable balance in SAR at extraction (19-20 Oct 2026). Non-zero for 1,719 customers: 1,543 owe SAR 3.58M, 176 have credit balances (SAR -0.15M). One snapshot, no invoice detail.	Inferred
37	CUST_DISC	number	0.9%	1	0 (176); text "NULL": 18,633 (99.1%)	Customer discount; 0 where filled.	Constant
38	CUST_TAX	number	100%	1	1 (18,809)	Tax (VAT) applicable flag; 1 for every customer.	Constant
39	CUST_TAXNO	-	0%	0	Personal / identifying data: values not reproduced in this document.	Tax number.	Empty
40	CUST_TAXREGNO	number	87.8%	4,675	Personal / identifying data: values not reproduced in this document.	VAT registration number (15 digits).	Inferred

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
41	CUST_MUNICIPALNO	-	0%	0	Personal / identifying data: values not reproduced in this document.	Municipality licence number.	Empty
42	REMARKS	-	0%	0	Text "NULL" in every row	Free-text remarks.	Empty
43	BANK_CD	-	0%	0	Personal / identifying data: values not reproduced in this document.	Bank.	Empty
44	BANK_BRANCH	-	0%	0	Personal / identifying data: values not reproduced in this document.	Bank branch.	Empty
45	BANK_ACCNO	-	0%	0	Personal / identifying data: values not reproduced in this document.	Bank account.	Empty
46	OPENING_BAL	-	0%	0	Text "NULL" in every row	Opening balance.	Empty
47	OPENING_BAL_DT	-	0%	0	Text "NULL" in every row	Opening balance date.	Empty
48	CUST_STATUS	number	100%	2	1 (14,002) · 0 (4,807)	Customer status: 1 = active (14,002), 0 = inactive (4,807).	Inferred
49	CUSTCLASS_STATUS	text	100%	1	A (18,809)	Customer-class status; "A" for every customer.	Constant
50	CUSTCLASS_UPLFLAG	-	0%	0	Text "NULL" in every row	Customer-class upload flag (sync).	Empty
51	CUSTCLASS_DWLFLAG	-	0%	0	Text "NULL" in every row	Customer-class download flag (sync).	Empty
52	CUSTCLASS_UPDDT	-	0%	0	Text "NULL" in every row	Customer-class update date.	Empty
53	USER_DEFINE1	text	100%	2	Z019 (18,808) · Z004 (1)	User-defined field 1: "Z019" for all but one ("Z004"). Possibly the ERP account group; not confirmed.	Ask Binzagr
54	USER_DEFINE2	-	0%	0	Blank in every row	User-defined field 2.	Empty
55	USER_DEFINE3	-	0%	0	Blank in every row	User-defined field 3.	Empty
56	USER_DEFINE4	-	0%	0	Blank in every row	User-defined field 4.	Empty
57	USER_DEFINE5	-	0%	0	Blank in every row	User-defined field 5.	Empty
58	HQ_DEFINE1	-	0%	0	Blank in every row	Head-office defined field 1.	Empty
59	HQ_DEFINE2	-	0%	0	Blank in every row	Head-office defined field 2.	Empty
60	HQ_DEFINE3	-	0%	0	Blank in every row	Head-office defined field 3.	Empty
61	HQ_DEFINE4	-	0%	0	Blank in every row	Head-office defined field 4.	Empty
62	HQ_DEFINE5	-	0%	0	Blank in every row	Head-office defined field 5.	Empty
63	BLOCK_IND	number	100%	2	0 (15,566) · 1 (3,243)	Blocked for sales: 1 = blocked (3,243), 0 = not blocked. Independent of CUST_STATUS (1,414 active customers are blocked).	Inferred
64	DKA_IND	number	100%	1	0 (18,809)	Indicator (likely direct key account); 0 for all.	Constant
65	INV_COUNT	number	100%	1	0 (18,809)	Invoice counter; 0 for all.	Constant
66	CUST_BARCODE	-	0%	0	Blank in every row	Customer barcode.	Empty
67	CUST_SEASON	number	100%	1	0 (18,809)	Seasonal customer flag; 0 for all.	Constant

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
68	SEASON_START_DT	-	0%	0	Text "NULL" in every row	Season start.	Empty
69	SEASON_END_DT	-	0%	0	Text "NULL" in every row	Season end.	Empty
70	NEW_CUST_CD	-	0%	0	Text "NULL" in every row	Replacement customer code.	Empty
71	UPLDW_STATUS	-	0%	0	Text "NULL" in every row	Upload / download status (sync).	Empty
72	SVR_UPLDW_DT	-	0%	0	Text "NULL" in every row	Server upload / download date (sync).	Empty
73	CUST_GRP_DISC_CD	-	0%	0	Blank in every row	Customer group discount code.	Empty
74	LONGITUDE	number	96.0%	8,466	43.73 to 50.09; e.g. 46.7078526, 46.895314, 46.7074091; blank: 751	GPS longitude of the outlet (96% filled; all inside Saudi Arabia, mostly Riyadh).	Verified
75	LATITUDE	number	96.0%	8,465	22.30 to 26.44; e.g. 24.6025342, 24.7700454, 24.6564173; blank: 751	GPS latitude of the outlet.	Verified
76	VERSION	number	100%	1,393	15 to 3,699; e.g. 2201, 2200, 2660	Record version counter of the sales-force system.	Inferred
77	SYNCOOPERATION	text	100%	1	U (18,809)	Last sync operation: U = update (all rows).	Constant
78	SYNCVERSION	date	100%	10	2026-10-19 to 2026-10-20; most common 2026-10-20 01:48:08 (7,126)	Timestamp of the last sync = extraction time (19-20 Oct 2026).	Inferred
79	SYNCFLAG	text	100%	1	N (18,809)	Sync flag; N for all.	Constant
80	VISION_STORE	number	100%	1	0 (18,809)	Flag; 0 for all.	Constant
81	SH_REPLN	number	100%	1	0 (18,809)	Shelf-replenishment flag; 0 for all.	Constant
82	CUST_ACC	-	0%	0	Text "NULL" in every row	Customer account.	Empty
83	DIGITAL_IND	number	100%	1	0 (18,809)	Digital-ordering flag; 0 for all.	Constant
84	PREVIOUS_CUST_HIER3	-	0%	0	Text "NULL" in every row	Previous hierarchy level 3.	Empty
85	NO_OF_SKU	-	0%	0	Text "NULL" in every row	Number of SKUs.	Empty
86	VILLAGE	number	5.0%	1	1 (945); text "NULL": 17,864 (95.0%)	1 for 945 customers, otherwise blank. Meaning unknown (possibly an out-of-town outlet flag).	Ask Binzagr
87	CHECK_LICENSE	-	0%	0	Text "NULL" in every row	Licence check flag.	Empty
88	ATTR1_CD	number	100%	1	2300 (18,809)	Attribute 1: 2300 for every customer = the Riyadh branch / warehouse code (same code as the salesmen's WHS_CD).	Inferred
89	ATTR2_CD	number	0.1%	1	600 (28); blank: 18,781	Attribute 2: 600 for 28 customers. Meaning unknown.	Ask Binzagr
90	ATTR3_CD	-	0%	0	Blank in every row	Attribute 3.	Empty
91	ATTR4_CD	-	0%	0	Blank in every row	Attribute 4.	Empty
92	PAN_NO	-	0%	0	Personal / identifying data: values not reproduced in this document.	Tax-id field of the software template (not used in Saudi Arabia).	Empty
93	LINK_CODE	-	0%	0	Text "NULL" in every row	Link code.	Empty
94	ADDR_1_CD	-	0%	0	Blank in every row	Address code 1.	Empty

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
95	ADDR_2_CD	-	0%	0	Blank in every row	Address code 2.	Empty
96	ADDR_3_CD	-	0%	0	Blank in every row	Address code 3.	Empty
97	ADDR_4_CD	-	0%	0	Blank in every row	Address code 4.	Empty
98	ADDR_5_CD	-	0%	0	Blank in every row	Address code 5.	Empty
99	ADDR_6	text	100%	1	SA (18,809)	Country: "SA" for all.	Constant
100	ADDR_6_CD	-	0%	0	Blank in every row	Address code 6.	Empty
101	ADDR_POSTAL_CD	-	0%	0	Blank in every row	Postal code id.	Empty
102	STATE_CD	-	0%	0	Blank in every row	State / region code.	Empty
103	RSS_IND	text	100%	1	(a space) (18,809)	Flag; a blank space for all.	Constant
104	SMS_NOTIFICATION	number	100%	1	0 (18,809)	SMS notification flag; 0 for all.	Constant
105	EMAIL_NOTIFICATION	number	100%	1	0 (18,809)	E-mail notification flag; 0 for all.	Constant
106	GST_SCHEME	text	100%	1	(a space) (18,809)	Tax-scheme field of the software template; blank for all.	Constant
107	TERTIARY_IND	number	100%	1	0 (18,809)	Tertiary-sales flag; 0 for all.	Constant
108	PROMO_IND	number	100%	1	1 (18,809)	Promotion-eligible flag; 1 for all.	Constant
109	SUBDIST_SUBDIST_CD	-	0%	0	Blank in every row	Sub-distributor code.	Empty
110	TERTIARY_SUBDIST_CD	-	0%	0	Blank in every row	Tertiary sub-distributor code.	Empty
111	VMI_TRANSIT_STK	number	100%	1	0 (18,809)	Vendor-managed-inventory flag; 0 for all.	Constant
112	PRINT_TERTIARY_ORDER_IND	number	100%	1	0 (18,809)	Print-tertiary-order flag; 0 for all.	Constant
113	SPECIAL_PRC	number	100%	1	0 (18,809)	Special-price flag; 0 for all.	Constant
114	IMAGE_REC_IND	-	0%	0	Text "NULL" in every row	Image-recognition flag.	Empty
115	OUTLET_LOC_IND	number	100%	1	1 (18,809)	Outlet location check enabled; 1 for all.	Constant
116	OUTLET_LOC_METER	number	100%	3	30 (18,764) · 250 (44) · 1000 (1)	Geo-fence radius in metres for the rep's check-in at the outlet: 30 m for 99.8%.	Inferred
117	MAX_INV_AMT	number	60.2%	766	0 to 53,400; most common 500 (3,125); text "NULL": 7,495 (39.8%)	Maximum amount of one invoice in SAR (e.g. 500, 1,000); filled for 60% of customers.	Inferred
118	OTP_VS	number	>99.9%	2	0 (15,926) · 1 (2,882); text "NULL": 1 (<0.1%)	One-time-password confirmation on van sales: 1 for 2,882 customers.	Inferred
119	OTP_DEL	number	>99.9%	1	0 (18,808); text "NULL": 1 (<0.1%)	One-time-password confirmation on delivery; 0 for all.	Constant

Customer hierarchy codes (CUST_HIER1-3) with counts are listed in Appendix D.

6. Product master and product hierarchy

6.1 Product master

Product Master & Grouping.xlsx, sheet "Product Master". **One row = one product (material)**, key PRD_CD. 23,497 rows and 61 named columns plus 6 columns without a header. **Seven rows are damaged** (Excel rows 224, 513, 525, 654, 669, 1184 and 1185): a stray quote character made the export glue 155 product records into single cells, which pushed fragments of text into other columns. That is why a handful of values below look out of place (e.g. a description inside STATUS); the cleaning rebuilt the 155 records (document 2).

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	text	100%	2	HQ (23,496) · EN 3 @15% PRICE OFF 135GM (1)	"HQ" = head-office master for every product.	Constant
2	PRD_CD	number	100%	23,497	200291 to 900227; e.g. 200291, 200374, 200413	Product (material) code: 6-digit numbers 200291-900227 plus 12 alphanumeric legacy codes. Unique.	Verified
3	PRD_DESC	text	100%	23,243	e.g. [Arabic text], MC REFERENCE ARTICLE	Combined description as exported (English, with the Arabic name appended for some products).	Verified
4	PRD_DESC1	text	100%	22,565	e.g. Mob Cap Blue, ***DELISTED ARTICLE***, MC REFERENCE ARTICLE	English description (max 40 characters).	Verified
5	PRD_DESC2	text	98.5%	22,151	e.g. [Arabic text]; blank: 352	Arabic description.	Verified
6	STATUS	text	>99.9%	8	most common B (14,511); blank: 1	Product status: B (14,511) or A (8,979). Meaning of A / B not provided.	Ask Binzagr
7	SELLING_IND	number	100%	8	most common 1 (23,490)	Sellable flag; 1 for every valid row.	Constant
8	PRD_TAX	number	>99.9%	5	1 (23,310) · 0 (180) · B (3) · LIPTON GREEN TEABAG MINT 100X1.5GM + MUG (1) · ABU ZAHRA TEA 1.5 KG (1); blank: 2	VAT applicable: 1 = taxable (23,310), 0 = not taxable (180).	Inferred
9	RSC_PRD	text / number	<0.1%	4	1 (3) · [Arabic text] (1) · [Arabic text] (1) · 24 X 3 X 135 GM (1); blank: 23,491	Related product.	Empty
10	EAN_NO	number	67.6%	10,011	e.g. 6281006438682, 62810272, 6281006438668; blank: 7,623	EAN / GTIN barcode (8-14 digits); 67% filled.	Inferred
11	SHELF_LIFE	number / text	<0.1%	3	[Arabic text] (1) · 1 (1) · 9.2800585201003E+17 (1); blank: 23,494	Shelf life. Empty for every product.	Empty
12	PACKING	text / number	>99.9%	6,195	e.g. 1, 1 x 1, 12 X 400 ML; blank: 6	Pack configuration text, e.g. "24 X 330 ML", "12 X 400 ML".	Inferred
13	PRINCIPAL_IND	text	>99.9%	2	P (23,490) · 1 (1); blank: 6	Principal-managed product flag; "P" for all.	Constant
14	PRDCAT_KEY	number	>99.9%	712	e.g. 9.28005852210021E+17, 9.2800585201002E+17, 9.2800585231003E+17; blank: 2	Category key = 18-digit code of the product's level-6 node in the hierarchy. Stored as a number, so Excel kept only 15 significant digits (1.9000152003004E+17): the last digits are lost in the file.	Verified
15	BASEPRD_CD	text	<0.1%	1	P (3); blank: 23,494	Base product.	Empty
16	FGRP_CD	number / text	<0.1%	4	1.3000138002004E+17 (2) · 6281006850576 (1) · 1.1000131002004E+17 (1) · 048X 1.5 K G (1); blank: 23,492	Product family group.	Empty
17	DISTBASE_CD	text	<0.1%	1	P (1); blank: 23,496	Distributor base product.	Empty

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
18	BRAND_HIER1	number / text	<0.1%	3	8X63.5 (1) · 1.10001270020032E+17 (1) · 1 (1); blank: 23,494	Brand hierarchy 1 (brand is held in the product hierarchy instead).	Empty
19	BRAND_HIER2	text	<0.1%	1	P (1); blank: 23,496	Brand hierarchy 2.	Empty
20	BRAND_HIER3	number	<0.1%	1	9.2600585141001E+17 (1); blank: 23,496	Brand hierarchy 3.	Empty
21	PROMO_IND	number	>99.9%	2	1 (23,490) · 0 (1); blank: 6	Promotion-eligible flag; 1 for all valid rows.	Constant
22	PTAXGRP_CD	-	0%	0	Blank in every row	Purchase tax group.	Empty
23	STAXGRP_CD	number	<0.1%	2	1 (3) · 0 (1); blank: 23,493	Sales tax group.	Empty
24	PL_CONV_FACTOR	number	>99.9%	1	0 (23,490); blank: 7	Price-list conversion factor; 0 for all.	Constant
25	PL_UOM_CD	number	<0.1%	1	1 (1); blank: 23,496	Price-list unit.	Empty
26	LY_CONV_FACTOR	number	>99.9%	1	0 (23,493); blank: 4	Layer conversion factor; 0 for all.	Constant
27	LY_UOM_CD	number	<0.1%	1	1 (1); blank: 23,496	Layer unit.	Empty
28	HQ_DEFINE1	number	<0.1%	1	0 (4); blank: 23,493	Head-office field 1.	Empty
29	HQ_DEFINE2	-	0%	0	Blank in every row	Head-office field 2.	Empty
30	HQ_DEFINE3	number	<0.1%	1	0 (2); text "NULL": 1 (<0.1%); blank: 23,494	Head-office field 3.	Empty
31	HQ_DEFINE4	number	<0.1%	1	0 (1); blank: 23,496	Head-office field 4.	Empty
32	HQ_DEFINE5	number	<0.1%	1	0 (2); blank: 23,495	Head-office field 5.	Empty
33	BE_IND	number	<0.1%	1	10030901 (1); text "NULL": 23,490 (>99.9%); blank: 6	Back-end indicator; text "NULL" for all valid rows.	Empty
34	NORET_DISC	number	>99.9%	1	0 (23,491); blank: 6	No-return discount; 0 for all.	Constant
35	DIST_ALLOWANCE	number	>99.9%	1	0 (23,491); text "NULL": 3 (<0.1%); blank: 3	Distributor allowance; 0 for all.	Constant
36	MATGRP_CD	number	>99.9%	865	0 to 99999998; e.g. 50026401, 10020903, 10010501; blank: 4	Material group (8 digits). Equals digits 11-18 of the exact category key for 100% of products, which is how the lost key digits were recovered in cleaning.	Verified
37	DEALER_MARGIN	number	>99.9%	1	0 (23,494); text "NULL": 1 (<0.1%); blank: 2	Dealer margin; 0 for all.	Constant
38	CD_COMMISSION	number	>99.9%	5	0 (23,491) · 20040303 (1) · 20040302 (1) · 20040305 (1) · 202362 (1); blank: 2	Cash-discount commission; 0 for all.	Constant
39	BUSINESS_GRP	number	<0.1%	1	0 (5); text "NULL": 1 (<0.1%); blank: 23,491	Business group.	Empty
40	PREMIER_PRD	number	>99.9%	3	0 (23,494) · 20032301 (1) · 2 (1); blank: 1	Premier-product flag; 0 for all.	Constant
41	PARENT_PRD	number	93.5%	15,545	0 to 900227; e.g. 204805, 202028, 204807; blank: 1,537	Parent product code (another product code; 93% filled). Exact relation (base item, multipack, replacement?) not provided.	Ask Binzagr
42	MOST_RECENT_ACTIVE	number	>99.9%	3	0 (23,494) · 10010501 (1) · Y (1); blank: 1	Flag; 0 for all.	Constant
43	RTN_TYPE	number	>99.9%	6	2 (23,490) · 0 (1) · 201537 (1) · 201546 (1) · 201668 (1) · 0 (1); blank: 2	Return type code; 2 for all.	Constant

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
44	CM	number	>99.9%	1	0 (23,495); text "NULL": 1 (<0.1%); blank: 1	Flag; 0 for all.	Constant
45	SAP_IND	text	>99.9%	4	Y (23,490) · 2 (3) · 201703 (1) · 1 (1); blank: 2	Exists in SAP: "Y" for all.	Constant
46	PRD_TYPE	text	>99.9%	2	O (23,490) · 0 (6); blank: 1	Product type: "O" for all.	Constant
47	POSM_CAT	number / text	<0.1%	4	Y (3) · 201209 (1) · 2 (1) · 35 (1); text "NULL": 23,490 (>99.9%); blank: 1	Point-of-sale-material category; text "NULL" for all valid rows.	Empty
48	STOCK_FLAG	number	>99.9%	4	1 (23,490) · O (3) · 0 (2) · U (1); blank: 1	Stocked flag; 1 for all.	Constant
49	REPR_IND	number	>99.9%	4	0 (23,490) · 2 (1) · Y (1) · 2025-01-06 17:58:50 (1); text "NULL": 3 (<0.1%); blank: 1	Flag; 0 for all.	Constant
50	VERSION	number	>99.9%	107	0 to 131; e.g. 35, 29, 36; blank: 1	Record version counter.	Inferred
51	SYNCOOPERATION	text	>99.9%	5	U (23,361) · A (129) · 0 (3) · Y (1) · 1 (1); text "NULL": 1 (<0.1%); blank: 1	Last sync operation: U = update (23,361), A = add (129).	Inferred
52	SYNCVERSION	date	>99.9%	166	1900-01-01 to 2026-10-20; most common 2025-01-06 17:58:50 (6,096); text "NULL": 1 (<0.1%); blank: 1	Timestamp of the last change of the record (Jan 2025 - Oct 2026).	Inferred
53	SYNCFLAG	text	>99.9%	3	N (23,490) · U (3) · 0 (1); text "NULL": 1 (<0.1%); blank: 2	Sync flag; N for all.	Constant
54	TEMP_COND	number	>99.9%	4	1 (23,491) · 2026-03-18 01:00:05 (2) · 2026-01-19 01:00:27 (1) · 33 (1); blank: 2	Temperature condition: 1 for every valid row, so it does NOT tell ambient from chilled or frozen.	Constant
55	CRATE_IND	text / number	<0.1%	3	N (3) · 0 (1) · U (1); text "NULL": 23,491 (>99.9%); blank: 1	Crate flag; text "NULL".	Empty
56	MY_TAX_CD	number / date	<0.1%	3	1 (3) · 36 (1) · 2025-01-06 17:58:50 (1); text "NULL": 1 (<0.1%); blank: 23,491	Tax-code field of the software template.	Empty
57	MY_TAX_CD_IN	text	<0.1%	2	U (1) · N (1); text "NULL": 3 (<0.1%); blank: 23,492	Tax-code field of the software template.	Empty
58	SEQ_NO	date / number / text	<0.1%	3	2026-01-19 01:00:27 (1) · 1 (1) · N (1); text "NULL": 23,490 (>99.9%); blank: 4	Sequence number; text "NULL".	Empty
59	CHECK_LICENSE	text	<0.1%	1	N (1); text "NULL": 23,491 (>99.9%); blank: 5	Licence check; text "NULL".	Empty
60	HSN_CD	number	0.2%	7	1 to 24; most common 6 (29); text "NULL": 3 (<0.1%); blank: 23,437	Tax-classification field of the software template (57 values).	Empty
61	RSS_IND	text	>99.9%	2	N (23,361) · M (129); text "NULL": 4 (<0.1%); blank: 3	Flag: N (23,361) or M (129).	Inferred
62	(unnamed column BJ)	-	0%	0	Only blanks (23,496) and text "NULL" (1)	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty
63	(unnamed column BK)	text	<0.1%	1	N (3); text "NULL": 1 (<0.1%); blank: 23,493	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty
64	(unnamed column BL)	-	0%	0	Only blanks (23,496) and text "NULL" (1)	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
65	(unnamed column BM)	text	<0.1%	1	N (1); text "NULL": 1 (<0.1%); blank: 23,495	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty
66	(unnamed column BN)	-	0%	0	Blank in every row	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty
67	(unnamed column BO)	text	<0.1%	1	N (1); blank: 23,496	No header. Holds overflow from the 7 damaged rows only (see Cleaning compendium).	Empty

6.2 Product hierarchy (grouping)

Sheet "Product Grouping": the six-level product hierarchy. **One row = one node.** Codes are prefix-coded: every code starts with its parent's code. The product master points to its level-6 node through PRDCAT_KEY.

Hierarchy structure with a worked example

Level	Name	Digits	Nodes	Example code (product 201764, MOUSSY CLASSIC BOTTLE 330 ML)	Example name	Stored exactly?
1	Principal	5	158	19000	Carlsberg	yes
2	Brand	10	519	1900015200	Carlsberg-MOUSSY	yes
3	Business unit	12	587	190001520030	Carlsberg-MOUSSY-BU 3	yes
4	Division	14	618	19000152003004	Carlsberg-MOUSSY-BU 3-FD60 - DRINKS	yes
5	Category	16	916	1900015200300403	Carlsberg-MOUSSY-BU 3-FD60 - DRINKS-MALT BEVERAGE	no - 15 significant digits kept
6	Sub-category	18	1,487	190001520030040301	(several names share the truncated code)	no - 15 significant digits kept

The product master stored this product's key as 190001520030040000 (Excel kept 15 significant digits); the exact key 190001520030040301 = first 10 digits + MATGRP_CD 30040301.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	text	100%	1	HQ (4,285)	"HQ" for all nodes.	Constant
2	PRDCAT_LEVEL	number	100%	6	6 (1,487) · 5 (916) · 4 (618) · 3 (587) · 2 (519) · 1 (158)	Hierarchy level: 1 principal, 2 brand, 3 business unit, 4 division, 5 category, 6 sub-category.	Verified
3	PRDCAT_CD	number	100%	3,302	e.g. 9.9152481008203E+17, 4.1000193009101E+17, 9.29005856980014E+17	Node code, prefix-coded: 5 / 10 / 12 / 14 / 16 / 18 digits for levels 1-6 (each code starts with its parent's code). Levels 5-6 were stored as numbers, so Excel kept only 15 significant digits.	Verified
4	PRDCAT_PAR	number	96.3%	2,592	e.g. 45000, 92800, 99152; text "NULL": 158 (3.7%)	Parent node code; text "NULL" for the 158 level-1 nodes.	Verified
5	PRDCAT_DESC	text	100%	2,497	e.g. HEINZ AFRICA & MIDDLE EAST-Heinz-BU 2-FD85 - F..., HEINZ AFRICA & MIDDLE EAST-Heinz-BU 5-FD50 - C..., Crystal Arabia for Modern Industries Ltd-SUNOV...	Node name. Deeper levels repeat the path: "principal-brand-BU-division-...", cut at 50 characters.	Verified
6	PRINCIPAL_IND	text	100%	1	P (4,285)	"P" for all nodes.	Constant
7	BE_IND	number	100%	1	1 (4,285)	1 for all nodes.	Constant

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
8	VERSION	number	100%	146	5 to 1,679; most common 1679 (2,284)	Record version counter.	Inferred
9	SYNCOOPERATION	text	100%	1	U (4,285)	"U" for all.	Constant
10	SYNCVERSION	date	100%	1	2026-10-20 02:00:04 (4,285)	Extraction timestamp (20 Oct 2026 02:00:04).	Constant
11	SYNCFLAG	text	100%	1	N (4,285)	"N" for all.	Constant

7. Salesman master

Salesman Master.xlsx. One row = one van-sales rep, key SLSMAN_CD. 119 rows (70 active), 54 columns. Each rep drives one van whose code equals the rep code.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	DIST_CD	number	100%	2	1000 (114) · 8000 (5)	Distributor / company code: 1000 (114 reps) or 8000 (5).	Ask Binzagr
2	SLSMAN_CD	text	100%	119	e.g. V10267, V27907, V29059	Van-sales rep code ("V" + 5 digits). Unique.	Verified
3	SLSMAN_NAME	text	100%	112	Personal / identifying data: values not reproduced in this document.	Name of the rep.	Inferred
4	SLSMAN_OPRTYPE	text	100%	1	V (119)	Operation type: "V" = van sales for every rep.	Constant
5	VAN_CD	text	100%	119	e.g. V10267, V27907, V29059	Van code. Equal to SLSMAN_CD for every rep (one van per rep).	Verified
6	WHS_CD	number	100%	2	2300 (116) · 2301 (3)	Warehouse the van loads from: 2300 (116 reps) or 2301 (3).	Inferred
7	POS_ID	text	100%	119	e.g. BCOV10267, BCOV27907, BCOV29059	Handheld / POS device id = "BCO" + rep code (96% of reps).	Verified
8	SLSMAN_STATUS	number	100%	2	1 (70) · 0 (49)	Rep status: 1 = active (70), 0 = inactive (49).	Inferred
9	BRANCH_CD	number	100%	2	2300 (116) · 2301 (3)	Branch: 2300 (Riyadh, 116 reps) or 2301 (3 reps, meaning unknown).	Ask Binzagr
10	COMPANY	text	100%	1	D (119)	Company type: "D" for all.	Constant
11	BU_CD	-	0%	0	Blank in every row	Business unit.	Empty
12	HHT_FLAG	number	100%	1	1 (119)	Uses a handheld terminal; 1 for all.	Constant
13	USER_DEFINE1	number	100%	1	1 (119)	User field 1; 1 for all.	Constant
14	USER_DEFINE2	number	100%	68	500 to 88,898; most common 500 (29)	User field 2: numbers 500-88,898 (500 for 29 reps). Meaning unknown (a limit or target?).	Ask Binzagr
15	USER_DEFINE3	number	100%	119	10267 to 95715 (the rep number); 119 distinct	User field 3: the rep's 5 digits (equals SLSMAN_CD without "V" for every rep).	Verified
16	USER_DEFINE4	number	100%	66	500 to 147,411; most common 500 (29)	User field 4: numbers 500-147,411. Meaning unknown.	Ask Binzagr
17	USER_DEFINE5	number	100%	1	1 (119)	User field 5; 1 for all.	Constant
18	SLSMAN_DT	date	100%	7	2026-03-03 to 2026-10-20; most common 2026-10-20 (94)	Date of the record (last update); 94 reps on 20 Oct 2026.	Inferred
19	MERC_MENU	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Merchandising menu flag; 0 where filled (12 reps).	Inferred
20	WITH_VAN	text	99.2%	2	N (107) · O (11); text "NULL": 1 (0.8%)	With-van flag: N (107) or O (11).	Ask Binzagr
21	USER_CD	-	0%	0	Text "NULL" in every row	User code.	Empty
22	UPLDW_STATUS	text	10.9%	1	N (13); text "NULL": 106 (89.1%)	Upload / download status (sync): N for 13 reps.	Inferred
23	SVR_UPLDW_DT	-	0%	0	Text "NULL" in every row	Server upload / download date.	Empty
24	VERSION	number	100%	95	115 to 3,188; e.g. 382, 2969, 383	Record version counter.	Inferred
25	SYNCOOPERATION	text	100%	1	U (119)	"U" for all.	Constant

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
26	SYNCVERSION	date	100%	3	2026-10-20 01:00:04 (93) · 2026-10-20 03:35:05.497000 (25) · 2026-10-20 10:33:21.023000 (1)	Extraction timestamp (20 Oct 2026).	Inferred
27	SYNCFLAG	text	100%	1	N (119)	"N" for all.	Constant
28	GPS_IND	number	100%	1	1 (119)	GPS tracking on; 1 for all.	Constant
29	IMAGE_IND	number	100%	1	1 (119)	Photo capture on; 1 for all.	Constant
30	LANG_CD	text	100%	1	en-US (119)	Handheld language: en-US for all.	Constant
31	MON	number	11.8%	2	0 (12) · 1 (2); text "NULL": 105 (88.2%)	Day flag (Monday). Filled for only 14 reps, almost all 0: no usable route-day plan.	Inferred
32	TUE	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Tuesday), as MON.	Inferred
33	WED	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Wednesday), as MON.	Inferred
34	THU	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Thursday), as MON.	Inferred
35	FRI	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Friday), as MON.	Inferred
36	SAT	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Saturday), as MON.	Inferred
37	SUN	number	10.1%	1	0 (12); text "NULL": 107 (89.9%)	Day flag (Sunday), as MON.	Inferred
38	HOLIDAY_IND	text	10.1%	1	S (12); text "NULL": 107 (89.9%)	Holiday indicator: "S" for 12 reps.	Inferred
39	WORKDAY_IND	number	100%	1	1 (119)	Work-day indicator; 1 for all.	Constant
40	DIST_HOLIDAY_IND	number	100%	1	1 (119)	Distributor-holiday indicator; 1 for all.	Constant
41	TEAM_CD	-	0%	0	Text "NULL" in every row	Team code.	Empty
42	CONSENT_IND	number	100%	1	1 (119)	Privacy consent given; 1 for all.	Constant
43	CONSENT_DT	date	100%	119	2022-02-10 to 2026-09-03; e.g. 2022-06-01 12:07:27, 2022-05-31 11:09:11, 2022-05-31 11:15:51	Date and time of the consent.	Inferred
44	CONSENT_GPS_IND	number	100%	2	1 (118) · 0 (1)	GPS consent: 1 (118), 0 (1).	Inferred
45	CONSENT_GPS_DT	date	100%	119	2022-02-10 to 2026-10-20; e.g. 2022-06-01 12:07:29, 2022-05-31 11:09:13, 2023-02-23 10:51:34	Date and time of the GPS consent.	Inferred
46	RSS_IND	text	10.1%	1	N (12); text "NULL": 107 (89.9%)	Flag: N for 12 reps.	Inferred
47	PRIVACY_IND	number	100%	1	1 (119)	Privacy flag; 1 for all.	Constant
48	STOCK_FILLING_DAY	number	100%	1	1 (119)	Stock-filling day; 1 for all.	Constant
49	CS_COLL_BLK_STATUS	text	100%	1	No (119)	Cash-collection block status: "No" for all.	Constant
50	CONTAINER	text	100%	1	N (119)	Container flag: N for all.	Constant
51	PARENT	text	61.3%	73	e.g. BzRVRYd201, BzRVRYd203, BzRVRYd044; blank: 46	Parent code "BzRVRYd###" (73 values; 61% filled). Likely a route / supervisor grouping; not confirmed.	Ask Binzagr

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
52	CHILD	-	0%	0	Blank in every row	Child code.	Empty
53	SAP_INV_REF	number	100%	2	0 (75) · 1 (44)	Invoices referenced to SAP: 1 for 44 reps, 0 for 75.	Inferred
54	SAP_SLSMAN_TYPE	text	0.8%	1	DO (1); text "NULL": 106 (89.1%); blank: 12	SAP salesman type: "DO" for 1 rep.	Inferred

8. Payment terms

Payment Term.xlsx, sheet "INVTERM_CD": definitions of the payment-term codes used in the customer master. 28 rows, 24 distinct codes. The full list is in Appendix E.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	INVTERM_CD	text	100%	24	e.g. ZC09, ZC10, ZC18	Payment-term code used in the customer master (INVTERM_CD). 24 codes; ZC09, ZC10, ZC18 and ZC23 are listed twice.	Binzagr
2	DESCRIPTION	text	100%	27	e.g. 15D 3% 30D 2% 60D 1% Over60net, Cash Cheque, 15 Days from End of Month	Term in words, e.g. "30 Days from End of Month" (ZC04). For ZC12 the cell only repeats the code. Full list in Appendix E.	Binzagr

9. Drinks and Lipton subset (first send)

An earlier, smaller extract for the Drinks and Lipton business. Every sheet has exactly the layout of the matching main file (same column names in the same order). The cleaning proved that its sales, returns and unit-conversion rows are all contained in the main files, so it adds no new transactions; it does add 174 customers that are not in the main customer master.

File	Sheet	Rows	Columns	Same layout as
Customer Master.xlsx	Sheet1	2,990	119	Customer master (section 5)
Product Grouping.xlsx	Sheet1	157	11	Product hierarchy (6.2)
Product Master.xlsx	Sheet1	1,384	61	Product master (6.1)
Sales_Return.xlsx	Sales Details	80,960	11	Riyadh sales lines (4.1)
Sales_Return.xlsx	Return From Customer	981	11	Riyadh return lines (4.2)
Sales_Return.xlsx	UOM_CD Conversion Factor	2,812	3	Unit-of-measure conversion (4.3)
Sales_Return.xlsx	Product Master	1,384	2	Product list in sales file (4.4)
Salesman Master.xlsx	Sheet1	41	54	Salesman master (7)

10. Binzagr's WMS mapping files (received 22 October)

Four files from Badr, sent after the 21 October data walkthrough. They explain the WMS log rather than add transactions: which activities are billed, who is behind each login, how many units of sale make a case or a pallet, and what the pallet ids looked like before the export damaged them. How each is used is in document 2, section 3.7.

10.1 Trans_Log_Mapping.xlsx

Sheet "Export". **One row = one transaction code** with Binzagr's classification. 88 rows, 7 columns.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	Tran Code	text	100%	88	88 distinct as text (87 codes)	Transaction type, as TRAN_TYPE in the WMS log (text). All 69 codes of the log are listed; Cycle Count appears twice, as "080" (In House) and "80" (Duplicate); 18 codes (110-920, e.g. Received HU's, Picked UOS) never occur in the log.	Verified
2	Tran Description	text	100%	87	e.g. Cycle Count, Picked Volume, Received HU's	Description of the code. Matches the log except code 100: "Picked Volume" here, "Item Import" in the log.	Binzagr
3	Case Pick / Pallet Pick	text	100%	2	Pallet (83) · Case (5)	Whether the activity is counted in cases or in pallets.	Binzagr
4	Grouping 1	text	100%	5	Others (71) · Inbound (7) · Outbound (4) · Pallets (3) · Repaletize (3)	Activity group (Others, Inbound, Outbound, Pallets, Repaletize).	Binzagr
5	Grouping 3	text	100%	2	Other (52) · Inbound & Outbound (36)	Higher-level group: Inbound & Outbound handling vs Other.	Binzagr
6	Type of Movement	text	100%	4	Duplicate (35) · Added Value (26) · Basic Service (19) · In House (8)	Basic Service and Added Value = billed services; In House = work no client pays for; Duplicate = billed under another code (e.g. the pick scan is billed as Case Pick / Pallet Pick).	Binzagr
7	Cost / Revenue	text	100%	2	Cost (70) · Revenue Generation (18)	Whether the code generates revenue (is billed) or is only a cost. 10 of the revenue codes occur in the log.	Binzagr

10.2 Users_Mapping.xlsx

Sheet "Sheet1". **One row = one WMS login in one snapshot** of the user table, for every Binzagr site (not only Jeddah). 32,920 rows, 9 columns. Names are personal data: described here, never reproduced or stored; the payroll number is the key.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	RECORD_CREATE_DATE	date	100%	9,865	15 export dates, 25 Sep 2025 to 01 Oct 2026: the 1st of each month, plus 25 Sep 2025, 16 Mar 2026	When the snapshot of the user table was taken; each snapshot lists every login once.	Verified
2	ROW_ID	number	100%	32,920	1 to 32,920 (running number)	Row number of the export.	Inferred
3	employee_id	-	0%	0	Blank in every row	Empty: the login is in column id.	Empty
4	id	text	100%	2,318	2,318 distinct logins, in the formats of the log (letters + site digits, plain numbers)	WMS login (badge), as EMPLOYEE_ID in the log: 242 of the 387 Jeddah logins appear (93.9% of scans).	Verified
5	name	text	>99.9%	1,139	Personal data: values not reproduced, and never stored in the cleaned data.	Name of the person behind the login.	Binzagr

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
6	emp_number	number	100%	1,034	1,034 distinct numbers, 93% of 5 digits; values not reproduced	Payroll (HR employee) number: the key Binzagr's attendance system uses (Badr, 21 Oct). One login changed payroll number over time (MAA210007).	Binzagr
7	menu_level	text	100%	7	TALLY CLERK (18,386) · STOREKEEPER (9,243) · ANNUALCOUNT (2,622) · WAREHOUSE MANAGER (1,240) · INV CONTROL (822) · QUICKVIEW (564) · BASE (43)	WMS menu (permission level) of the login: a system role, not an HR job title. ANNUALCOUNT looks like a temporary menu for the January 2026 stock count.	Inferred
8	wh_id	text / number	100%	69	69 site ids; most common 2100-04 (2,782)	Home site of the login. The list covers every Binzagr WMS site (2100-xx = the Jeddah sites of the log, plus 2200 ... 2700 series), not only Jeddah.	Inferred
9	status	text	100%	3	A (19,607) · I (13,298) · X (15)	A = active, I = inactive; X (15 rows, all storekeepers) is not explained.	Inferred

10.3 Conversion_Factor.xlsx (sic)

Sheet "Sheet1". **One row = one item.** 36,859 rows, 3 columns.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	Item number	number / text	100%	36,859	36,859 distinct; number (item code only) 22,724, text (client-item) 14,135	Item, either as ITEM_NUMBER in the log (client-item, e.g. 3005-5800821) or as the item code alone (e.g. 210264); matches 99.6% of item scans.	Verified
2	PAL	number	96.9%	869	0 to 99,999; most common 30 (1,681)	Units of sale per pallet. 154 items have PAL < CS and 7 hold 99,999 (a placeholder?); asked in sheet 10.	Binzagr
3	CS	number	99.6%	396	0 to 90,000; most common 1 (23,892)	Units of sale per case. CS = 1 for 65% of items: the unit of sale is then the case.	Binzagr

10.4 Sample_of_HU_ID.xlsx

Sheet "Export". 100 WMS rows re-exported with the same 19 columns as the log, plus 3 footer rows ("Total", "No filters applied", a blank row). The columns that differ from the log are below; the other 13 hold the same values and formats as section 3.

#	Column	Stored as	Filled	Distinct	Values seen	Meaning	Basis
1	TRAN_TYPE	text	100%	1	080 (100)	All rows are Cycle Count (080) scans of September 2026.	Verified
6	START_TRAN_TIME	date	100%	62	times on 02/01/1900	Time of day only, stored as an Excel time on 02/01/1900 (the date is in START_TRAN_DATE).	Verified
8	END_TRAN_TIME	date	100%	58	times on 02/01/1900	As START_TRAN_TIME.	Verified
11	CONTROL_NUMBER_2	-	0%	0	Blank in every row	Empty, as in most rows of the log.	Empty
17	HU_ID	text	96.0%	94	text ids of 1-16 digits, 52 of 12 digits; e.g. 210004132239	Pallet id stored as text with every digit (52 rows have 12 digits, e.g. 210004132239). The same rows in our export show 2.10004E+11: the export kept only the first 6 digits. 58 of the 100 rows are recovered this way.	Verified
18	HU_ID_2	-	0%	0	Blank in every row	Empty: unused, as Binzagr confirmed.	Empty

All 100 sample rows match a row of our export on 12 fields; 58 of them carry a destroyed id there (2.10004E+11). The export therefore kept only the first 6 of the 12 digits, and the other 2.86 million damaged ids cannot be repaired without a re-export (document 2, W5; document 4, G12).

Appendix A. WMS transaction types

All 69 TRAN_TYPE codes with their description(s) and raw row counts (all 8 files, including the duplicated day-1 rows). Family and leg come from the cleaned type table; median duration is the Pick-leg task time in seconds after cleaning; the last two columns are Binzagr's own classification (22 Oct).

Code	Description(s)	Raw rows	Family	Leg	Billing row	Zero-time share	Median s	Binzagr: movement	Binzagr: billed
80	Cycle Count	4,466	Inventory control	single		13%	40	In House / Duplicate	
100	Item Import	1,594	System / master data	single		100%	0	Duplicate	yes
153	Receipt of Shipment (Rcpt)	120,276	Inbound	receipt		1%	32	Basic Service	yes
154	Receipt of Shipment (Put)	116,676	Inbound	put		96%	0	Duplicate	
155	Adjust Receipt of Shipment	1,526	Inbound	single		0%	21	Added Value	
156	Shipment Reconciliation	123,685	Inbound admin	single		96%	0	Basic Service	
157	Close PO	8,176	Inbound admin	single		97%	0	Basic Service	
158	PO Modification	73	Inbound admin	single		100%	0	Basic Service	
159	RoS Close	126	Inbound admin	single		2%	6	Basic Service	
160	RoS Damaged Wood	7	Inbound admin	single		0%	12	Added Value	
171	Returns (Rcpt)	3,934	Returns	receipt		0%	67	Duplicate	
172	Returns (Put)	10,219	Returns	put		99%	0	Added Value	yes
183	Receipt Damaged (Rcpt)	973	Inbound	receipt		1%	55	Added Value	yes
184	Receipt Damaged (Put)	1,049	Inbound	put		99%	0	Added Value	
201	Move (Pick)	56,064	Internal movement	pick		0%	23	In House	
202	Move (Put)	56,887	Internal movement	put		99%	0	In House	
203	Re-Palletization Move(Pick)	2,927	Internal movement	pick		0%	7	Duplicate	
204	Re-Palletization Move(Put)	3,270	Internal movement	put		99%	0	Added Value	yes
205	Pallet Split(Pick)	1,114	Internal movement	pick		0%	7	Duplicate	
206	Pallet Split(Put)	1,117	Internal movement	put		99%	0	Added Value	yes
211	Directed Pickup (Pick)	95,223	Internal movement	pick		0%	43	Duplicate	
212	Directed Pickup (Put)	95,216	Internal movement	put		99%	0	Basic Service	
255	Planned Move (PD Pick)	19,070	Internal movement	pick		99%	0	Duplicate	
256	Planned Move (PD Put)	28,024	Internal movement	put		0%	8	In House	
301	Picking (Pick)	524,679	Picking	pick		4%	75	Duplicate	
302	Picking (Put)	501,420	Picking	put		33%	6	Duplicate	
305	Replenishment (Pick)	14,986	Replenishment	pick		99%	0	In House	

Code	Description(s)	Raw rows	Family	Leg	Billing row	Zero-time share	Median s	Binzagr: movement	Binzagr: billed
306	Replenishment (Put)	6,059	Replenishment	put		0%	52	Duplicate	
317	Move Staged Inventory (Pick)	1	Internal movement	pick		0%	21	Duplicate	
318	Move Staged Inventory (Put)	1	Internal movement	put		0%	5	In House	
321	Loading (Pick)	471,120	Loading / shipping	pick		48%	1	Duplicate	
322	Loading (Put)	471,012	Loading / shipping	put		48%	1	Basic Service	
323	Loading Per Pallet (Billing)	154,047	Loading / shipping	billing	yes	93%	0	Duplicate	
330	Close Load	18,202	Loading / shipping	single		0%	4	Basic Service	
331	Re-Open Load	99	Loading / shipping	single		100%	0	Added Value	
340	Shipping	65,857	Loading / shipping	single		78%	0	Duplicate	
341	Shipping Detail	439,274	Loading / shipping	single		42%	1	Basic Service	
343	Outbound Order Closure	3,673	Outbound admin	single		100%	0	Basic Service	
344	Bulk Order Short Pick Approval	4,700	Outbound admin	single		100%	0	Duplicate	
345	Bulk Order Closure	1,198	Outbound admin	single		100%	0	Duplicate	
346	Shipout Order Closure	13,486	Outbound admin	single		100%	0	Basic Service	
347	Shipout Short Pick Approval	32,351	Outbound admin	single		100%	0	Basic Service	
350	Consolidation (Pick/Put)	280,900	Consolidation	pick/put		56%	0	Added Value	yes
351	Consolidation Per Pallet (Billing)	64,587	Consolidation	billing	yes	91%	0	Duplicate	
391	Unload/Unpick (Pick)	2,664	Loading / shipping	pick		7%	43	Added Value	yes
392	Unload/Unpick (Put)	2,360	Loading / shipping	put		99%	0	Duplicate	
393	Unload (Put)	244	Loading / shipping	put		25%	12	Added Value	
400	Case Pick	403,059	Picking	single		100%	0	Added Value	yes
410	Pallet Pick	98,554	Picking	single		100%	0	Basic Service	yes
544	Scrap	239	Inventory control	single		0%	51	Duplicate	
553	Inter Warehouse Transfer / Inter Warehouse Transfer (Remove Line)	500	Inter-warehouse transfer	single		99%	0	Basic Service	
700	QC Hold Item	3,378	Quality control	single		96%	0	Added Value	
720	QC Hold License Plate / QC Hold LP	8,410	Quality control	single		97%	0	Added Value	
750	QC Release Item	16,633	Quality control	single		100%	0	Added Value	
770	QC Release License Plate / QC Release LP	7,556	Quality control	single		100%	0	Added Value	
800	Cycle Count Approval	2,562	Inventory control	single		2%	31	In House	
802	Cycle Count Move	8	Inventory control	single		0%	46	Duplicate	

Code	Description(s)	Raw rows	Family	Leg	Billing row	Zero-time share	Median s	Binzagr: movement	Binzagr: billed
803	CC Discrepancy for UnderGuarantee Inventory	14	Inventory control	single		30%	91	Duplicate	
808	Cycle count per location	2,043	Inventory control	single		97%	0	Duplicate	
810	Cycle Count Check	4,644	Inventory control	single		0%	32	In House	
844	Scrap Approval	216	Inventory control	single		100%	0	Duplicate	
851	Inventory Adjust by Location	3,018	Inventory control	single		0%	36	Added Value	
854	Inventory Adjust Approval	2,059	Inventory control	single		100%	0	Added Value	
885	LP Audit	86,344	Inventory control	single		0%	9	Added Value	
886	LP Audit Per Pallet (Billing)	86,259	Inventory control	billing	yes	98%	0	Duplicate	
914	RoS Shipment Audit	39,027	Inbound admin	single		0%	-	Duplicate	
970	Underload Receipt	504	Underload	single		0%	75	Basic Service	
971	Underload Issue	14,803	Underload	single		100%	0	Basic Service	
972	Underload Adjustment	232	Underload	single		100%	0	Added Value	

Binzagr columns from Trans_Log_Mapping.xlsx (section 10.1). Code 080 is listed twice in that file; code 100 is marked Revenue but is described there as "Picked Volume" and in the log as "Item Import" (asked in document 4).

Appendix B. Warehouse sites (WH_ID)

WH_ID	Raw rows	Share	First month	Last month	Changes seen in the data	Temperature (inferred, low confidence)
2100-04	3,040,146	66.0%	2026-02	2026-09	none	likely ambient
2100-01	672,434	14.6%	2026-02	2026-09	2026-08: -61%; 2026-09: -100%	likely ambient
2100-07	393,297	8.5%	2026-02	2026-09	2026-08: +279%	likely ambient
2100-12	338,889	7.4%	2026-02	2026-08	2026-05: -100%	likely ambient
2100-15	115,187	2.5%	2026-02	2026-09	none	likely cold-chain
2100-14	24,798	0.5%	2026-02	2026-09	2026-05: -91%; 2026-06: +925%; 2026-07: -78%; 2026-08: +270%; 2026-09: -63%	likely cold-chain
2100	19,647	0.4%	2026-02	2026-09	none	likely ambient
2100-16	275	<0.1%	2026-02	2026-09	none	likely ambient
2100-02	1	<0.1%	2026-07	2026-07	none	unknown

Site names, types and sizes were not provided; the temperature column is an inference from product names and must be confirmed (document 4).

Appendix C. WMS client codes (CLIENT_CODE)

Client code	Raw rows	Share	Type (inferred from item codes)	Main principals behind the items (inferred)	Confidence
5001	1,524,374	33.1%	Binzagr business unit	Binzagr Unilever Distribution Ltd (90%); Lipton Teas and Infusions (10%)	high
8007	782,795	17.0%	Binzagr business unit	Dabur International Limited (76%); Saudi Industrial Detergent Co. (22%); WaterWipes UC (2%)	medium
NULL	443,602	9.6%	no client on the row	order-level events and all billing events	
5003	437,451	9.5%	Binzagr business unit	Carlsberg (88%); International Beverage & Filling Ind LLC (11%); BINZAGR CO-RO LTD (0%)	high
3069	375,045	8.1%	External 3PL client	own item codes (not in the product master)	high (own item codes, 0% match)
5004	282,273	6.1%	Binzagr business unit	UNIPEX DAIRY PROD.CO.LTD (51%); HERSHEY INTERNATIONAL (20%); SEVILLE PRODUCTS LTD (17%)	medium
5002	281,110	6.1%	Binzagr business unit	BINZAGR FOODS (43%); Fonterra (27%); HEINZ AFRICA & MIDDLE EAST (13%)	low (multi-principal unit)
8011	212,157	4.6%	Binzagr business unit	Johnson's (100%)	high
6005	127,411	2.8%	Binzagr business unit	MCCAIN INTERNATIONAL INC (57%); HEINZ AFRICA & MIDDLE EAST (25%); UNIPEX DAIRY PROD.CO.LTD (6%)	medium
3030	35,776	0.8%	External 3PL client	own item codes (not in the product master)	high (own item codes, 0% match)
5007	34,949	0.8%	Binzagr business unit	SANPELLEGRINO.S.P.A. (41%); Kikkoman Corporation (24%); WaterWipes UC (15%)	low (multi-principal unit)
5005	28,420	0.6%	Binzagr business unit	MCCAIN INTERNATIONAL INC (57%); Lipton Teas and Infusions (20%); BINZAGR FOODS (12%)	medium

Client code	Raw rows	Share	Type (inferred from item codes)	Main principals behind the items (inferred)	Confidence
3024	15,919	0.3%	External 3PL client	own item codes (not in the product master)	high (own item codes, 0% match)
6002	5,396	0.1%	Binzagr business unit	BINZAGR FOODS (44%); Fonterra (25%); HEINZ AFRICA & MIDDLE EAST (24%)	low (multi-principal unit)
6003	5,272	0.1%	Binzagr business unit	International Beverage & Filling Ind LLC (50%); Carlsberg (50%); BINZAGR CO-RO LTD (0%)	medium
6001	4,653	0.1%	Binzagr business unit	Lipton Teas and Infusions (100%)	high
6004	2,962	<0.1%	Binzagr business unit	UNIPEX DAIRY PROD.CO.LTD (55%); BINZAGR FOODS (19%); HEINZ AFRICA & MIDDLE EAST (17%)	medium
3017	2,707	<0.1%	External 3PL client	own item codes (not in the product master)	high (own item codes, 0% match)
6007	1,064	<0.1%	Binzagr business unit	Kikkoman Corporation (54%); SANPELLEGRINO.S.P.A. (30%); BASATEEN FOODS SA LTD (14%)	medium
3099	912	<0.1%	External 3PL client	own item codes (not in the product master)	high (own item codes, 0% match)
8001	309	<0.1%	Binzagr business unit	Binzagr Unilever Distribution Ltd (96%); Lipton Teas and Infusions (4%)	high
5011	23	<0.1%	Binzagr business unit	Johnson's (100%)	high
8005	21	<0.1%	Binzagr business unit	Unilever Arabia (38%); Routin SAS (14%); Olayan Kimberly (14%)	low (multi-principal unit)
8003	21	<0.1%	Binzagr business unit	BINZAGR CO-RO LTD (95%); Carlsberg (5%)	high
8002	13	<0.1%	Binzagr business unit	HEINZ AFRICA & MIDDLE EAST (38%); Fonterra (38%); BINZAGR FOODS (8%)	low (multi-principal unit)
5006	11	<0.1%	Binzagr business unit	Binzagr Unilever Distribution Ltd (100%)	high
8010	6	<0.1%	Binzagr business unit	Crystal Arabia for Modern Industries Ltd (100%)	high
8004	6	<0.1%	Binzagr business unit	HEINZ AFRICA & MIDDLE EAST (83%); HERSHEY INTERNATIONAL (17%)	high
1001	6	<0.1%	Binzagr business unit	Swiss Arabian Perfumes (100%)	high
6011	4	<0.1%	Binzagr business unit	Johnson's (100%)	high
8006	4	<0.1%	Binzagr business unit	Binzagr Unilever Distribution Ltd (100%)	high
6010	2	<0.1%	Binzagr business unit	Crystal Arabia for Modern Industries Ltd (100%)	high

Appendix D. Customer hierarchy codes

Official names of these codes were not provided. The "channel" column is our label from keywords in customer names (English and Arabic) and is only a guess until Binzagr confirms it (document 4).

Level 1 (6 codes)

CUST_HIER1	Customers	Credit (Q)	Active	Channel label (inferred)	Confidence
10	18,436	10,650	13,672	mixed / unclear	none
30	305	223	265	pharmacy	medium
20	47	46	47	fuel station / automotive	medium
40	11	3	10	HoReCa (food service)	medium
50	8	0	6	HoReCa (food service)	medium
60	2	0	2	mixed / unclear	none

Level 2 (20 codes)

CUST_HIER2	Customers	Credit (Q)	Active	Channel label (inferred)	Confidence
10161	12,168	7,659	8,875	tamweenat (grocery store)	low
10160	3,131	1,898	2,935	mixed / unclear	none
10164	2,790	886	1,557	HoReCa (food service)	medium
30304	222	152	195	pharmacy	medium
10104	156	94	138	wholesale / trading	medium
10213	86	63	86	wholesale / trading	medium
30301	79	71	70	wholesale / trading	medium
10163	75	45	65	wholesale / trading	low
20213	47	46	47	fuel station / automotive	medium
10137	13	0	0	pharmacy	medium
40164	10	3	10	HoReCa (food service)	medium
10103	8	0	8	tamweenat (grocery store)	low
50501	8	0	6	HoReCa (food service)	medium
10801	5	2	4	mixed / unclear	none
10108	3	2	3	mixed / unclear	none
30103	2	0	0	mixed / unclear	medium
60608	2	0	2	mixed / unclear	none

CUST_HIER2	Customers	Credit (Q)	Active	Channel label (inferred)	Confidence
30137	2	0	0	pharmacy	medium
10301	1	1	1	wholesale / trading	medium
40103	1	0	0	HoReCa (food service)	medium

Level 3 (39 codes)

CUST_HIER3	Customers	Credit (Q)	Active	Channel label (inferred)	Confidence
10161173	9,513	6,117	6,947	tamweenat (grocery store)	low
10160162	2,878	1,755	2,733	mixed / unclear	none
10164174	2,784	884	1,551	HoReCa (food service)	medium
10161171	1,953	1,084	1,398	mixed / unclear	none
10161172	697	456	525	mixed / unclear	none
30304303	222	152	195	pharmacy	medium
10160160	221	127	172	mixed / unclear	none
10104168	88	53	75	wholesale / trading	low
10213213	84	62	84	wholesale / trading	medium
30301304	79	71	70	wholesale / trading	medium
10163169	75	45	65	wholesale / trading	low
10104164	68	41	63	wholesale / trading	medium
20213214	47	46	47	fuel station / automotive	medium
10160161	23	14	21	mixed / unclear	none
40164174	10	3	10	HoReCa (food service)	medium
10137137	9	0	0	pharmacy	medium
10103109	8	0	8	tamweenat (grocery store)	low
50501503	8	0	6	HoReCa (food service)	medium
10160213	5	2	5	mixed / unclear	medium
10801801	5	2	4	mixed / unclear	none
10137114	4	0	0	perfumery / cosmetics	medium
1010862	3	2	3	mixed / unclear	none
10160173	3	0	3	baqala / small grocery	medium
10164171	2	1	2	mixed / unclear	none
1016441	2	1	2	mixed / unclear	none
30137303	2	0	0	pharmacy	medium

CUST_HIER3	Customers	Credit (Q)	Active	Channel label (inferred)	Confidence
60608613	2	0	2	mixed / unclear	none
10213217	2	1	2	wholesale / trading	medium
10161174	2	1	2	mini / supermarket	medium
4010341	1	0	0	HoReCa (food service)	medium
10160174	1	0	1	wholesale / trading	medium
10164121	1	0	1	wholesale / trading	medium
10161801	1	0	1	mixed / unclear	none
10161168	1	1	1	mixed / unclear	none
10161162	1	0	1	mixed / unclear	none
10301304	1	1	1	wholesale / trading	medium
10164162	1	0	1	mixed / unclear	medium
30103114	1	0	0	perfumery / cosmetics	medium
30103137	1	0	0	pharmacy	medium

Appendix E. Payment terms as received

Excel row	INVTerm_CD	DESCRIPTION (as written)	Note
2	ZC01	Cash Cheque	
3	ZC02	15 Days from End of Month	
4	ZC03	20 Days from End of Month	
5	ZC04	30 Days from End of Month	
6	ZC05	45 Days from End of Month	
7	ZC06	60 Days from End of Month	
8	ZC07	4 days 2% cash disc 15days net from month end	
9	ZC08	30 days 2% disc 60 days net from month end	
10	ZC09	15 Days from Invoice / DN date	listed twice
11	ZC09	15 Days from Invoice / DN date	listed twice
12	ZC10	4 days 1% disc 60 days net from month end	listed twice
13	ZC10	4 days 1% disc 60 days net from month end	listed twice
14	ZC11	3 Days from Invoice date	
15	ZC12	ZC12	no description
16	ZC13	30 Days from Invoice date	
17	ZC14	90 Days from End of Month	
18	ZC15	20 Days from Invoice date	
19	ZC16	15D 3% 30D 2% 60D 1% Over60net	
20	ZC17	75 Days from End of Month	
21	ZC18	30 Days from Invoice / DN date	listed twice
22	ZC18	30 Days from Invoice / DN date	listed twice
23	ZC19	66 Days from Month End	
24	ZC20	2 Days from Invoice date	
25	ZC21	60 Days from Invoice date	
26	ZC22	180 Days from Invoice date	
27	ZC23	45 Days from Invoice date	listed twice
28	ZC23	45 Days from Invoice date	listed twice
29	ZC24	15D 3% 30D 2% 60D 1% Over60net	

Customer usage (raw master): ZC04 10,316 customers, ZC06 445, ZC02 156, ZC13 4, ZC09 1; the other 19 codes are not used.