



# Digital Trial Balance



## About Us

Yapı Kredi Teknoloji A.Ş. is a technology company established in 2015 to deliver innovative, qualified, high value-added products and solutions.

We develop innovative and R&D oriented comprehensive software projects and mobile applications applicable to the industry, especially banking and finance. For the solutions and products, we mostly employ artificial intelligence, machine learning, natural language processing, data mining and mobile software development techniques.

We cooperate with academic institutions, domestic and foreign R&D companies for the projects developed. We share the project outcomes in scientific articles and at national/international conferences with our industry partners and academia.

# What is Trial Balance (T-Balance)?

T-balances are free format financial documents which contain critical information of companies such as payables-receivables, deposits, long term loans and capital structure between companies and individuals if the companies belong to a group.

Periodical T-balances received from corporate/commercial/SMEs are free in column, row and content. T-balances contain valuable information which shows both the financial credibility of the companies and financial product family. This information is mostly included as a free text in the description column.

No	(Birleşik) Hesap	Hesap Açıklaması	Borç	Alac
1	100	KASA	890,07	0,
2	100.01	NAKİT KASASI	890,07	0,
3	100.01.01	Kasa ( TL )	117,29	0,
4	100.01.03	Kasa ( EURO )	672,05	0,
5	100.01.04	Kasa ( AED )	100,73	0,
6	101	ALINAN ÇEKLER	998.021,25	95.021,44
7	101.01	PORTFÖYDEKİ ÇEKLER	103.021,44	95.021,44
8	101.01.01	Portföydeki Çekler	103.021,44	95.021,44
9	101.01.01.01	Portföydeki Çekler ( TL )	95.021,44	0,
10	101.01.01.03	Portföydeki Çekler ( EURO )	95.021,44	95.021,44
11	101.02	TAHSİLDEKİ ÇEKLER	147.010,82	0,
12	101.02.01	Tahsildeki Çekler ( TL )	34.109,43	0,
13	101.02.01.02		34.109,43	0,
14	101.02.03	Tahsildeki Çekler ( EURO )	112.901,39	0,
15	101.02.03.02		112.901,39	0,
16	101.02.03.11		95.021,44	0,
17	101.02.03.12		104.885,95	0,
18	101.03	KREDİYE VERİLEN ÇEKLER	108.105,00	0,
19	101.03.01	Krediyeye Verilen Çekler ( TL )	108.105,00	0,
20	101.03.01.04		108.105,00	0,
21	101.03.01.10		108.105,00	0,
22	101.04	TAHSİL EDİLEMİYEN ÇEKLER	3.611,44	0,
23	101.04.01	Tahsil Edilemeyen Çekler	3.611,44	0,
24	101.04.01.01	Tahsil Edilemeyen Çekler ( TL )	3.611,44	0,
25	102	BANKALAR	2.540.074,60	21.289,52

HESAP KODU	AÇIKLAMA	BORÇ	ALACAK
1	DÖNEN VARLIKLAR		79.767,27
10	HAZIR DEĞERLER	7.991,6	9.318,82
100	KASA	7.895,0	9.318,82
100 01	KASA HESABI TL	7.895,0	9.318,82
102	BANKALAR	65,7	
102 02	ZİRAAT/ANKARA GİRİŞİMCİ ŞB.	65,7	
102 02 01	TR TL HESAP		
102 03	ULUS ŞB.	65,7	
102 03 01	TR54 TL HESAP	65,7	
102 04	DEMİRTEPE ŞB.	10,0	
102 04 01	TR TL HESAP	10,0	
102 05	GOP ŞB.	0,0	
102 05 01	TR TL HESAP	0,0	
102 06	'EVLER ŞB.	1,7	
102 06 01	YILDIZEVLER ŞB.	1,7	
12	TİCARİ ALACAKLAR	2.020.218,0	21.289,52
120	ALICILAR	2.430.218,0	16.157,14
120 01	YURTIÇI ALICILAR	2.430.218,0	16.157,14
120 01 R01	TIBBİ ÜRÜNLER TİC.LTD.ŞTİ	2.430.218,0	16.157,14
15	STOKLAR	2.152.905,8	
150	İLK MADDE VE MALZEME	2.151.565,1	
150 01	DÖNEM BAŞI STOK	2.151.565,1	
159	VERİLEN SİPARİŞ AVANSLARI	1.340,7	
159 01	30V.TUR.TİC.L	1.340,7	
18	GELECEK AYLARA AİT GİDERLER VE GELİRLER	21.289,52	21.289,52
180	GELECEK AYLARA AİT GİDERLER	21.289,52	21.289,52

# Digital Trial Balance

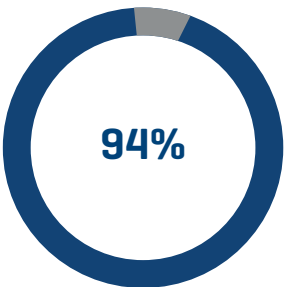
Digital T-balance, developed by Yapı Kredi Teknoloji, is an artificial intelligence application that can be used to extract and analyze information digitally and structurally from free-formatted t-balance documents.

Digital T-balance initially takes a document in Excel or PDF format and detects whether the document is t-balance [t-balance classification]. If the document is in t-balance structure [account code, account name, debit, credits etc. column structure], it converts into analyzable, structured data [t-balance information extraction].

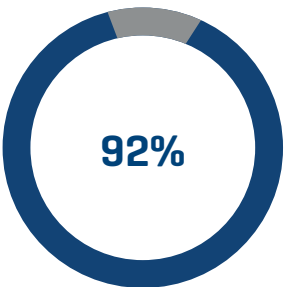
In the second phase, noisy and ambiguous text content in account explanation such as company name, bank name and person name are unified and converted into digital data by matching the company name in customer database [if any] and by enriching the data with unique customer ID and tax number, etc.

Digital T-balance application can determine whether a document is t-balance with a success rate of 94%, convert it to digital format with a success rate of 92%.

T-Balance Classification Success Rate

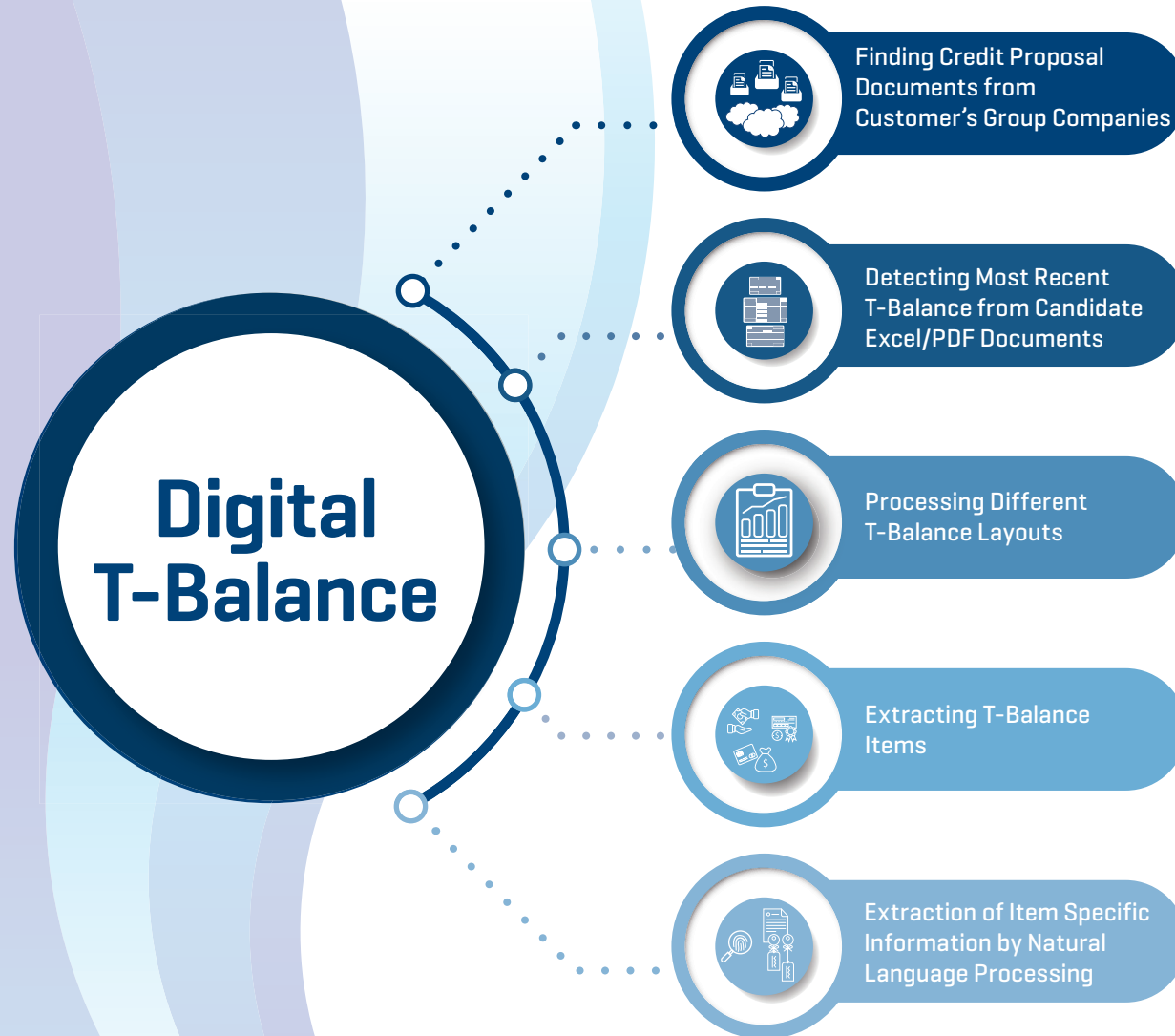


Reading Free Format T-Balance Success Rate

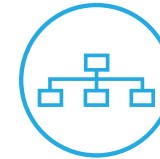


Digital T-balance is funded by The Scientific and Technological Research Council of Turkey [TUBITAK] under Industry R&D Programme.

## How does Digital T-Balance Work?



## Digital T-Balance Use Cases



### Extraction of Supply Chain

T-balances of all companies in your company portfolio can be analyzed by company name matching in recursive manner.



### Up-Sell & Cross-Sell

New sales opportunities can be created through unified bank loans, deposits and cheques information retrieved from t-balances.



### New Customer Engagement

By matching the suppliers and providers retrieved from t-balances with CRM database, your potential customers can be detected and new customer acquisition opportunities can be obtained.

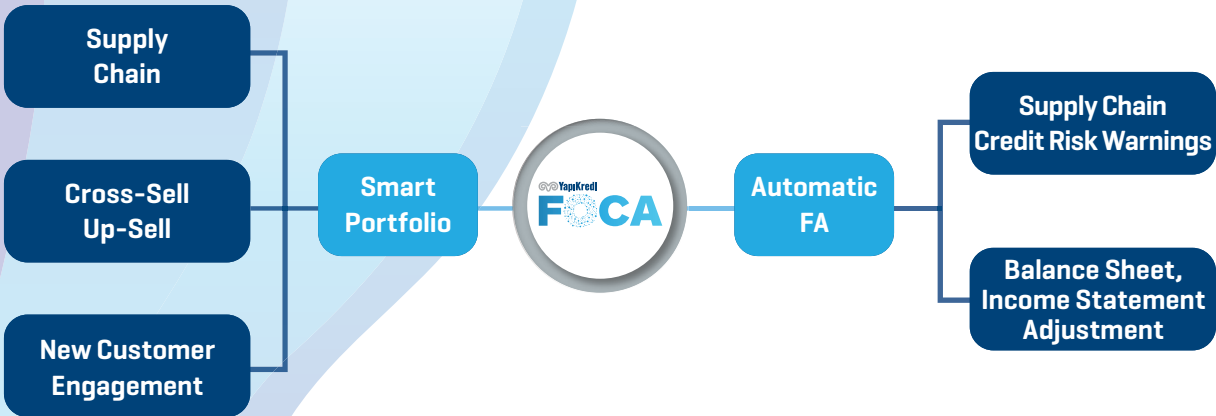


### Automation of Financial Analysis

Manually performed financial analysis operations can be digitalized and operational efficiency can be ensured by the integration of Digital T-balance services into banking applications.

# FOCA at Yapı Kredi

Yapı Kredi used Digital T-balance services in the FOCA project in order to accelerate and increase the efficiency of credit evaluation and financial analysis process. With the implementation of the FOCA project, the time spent for processing financial analysis was reduced by 36% for corporate/commercial customers, while 53% time savings were achieved in the credit evaluation process for large SME segments. With the scope of the same project, Digital T-balance services were used to engage new customers and a large number of potential corporate/commercial customers were identified. There are ongoing and planned studies regarding the use of data obtained through Digital T-balance in different areas such as risk, marketing etc.

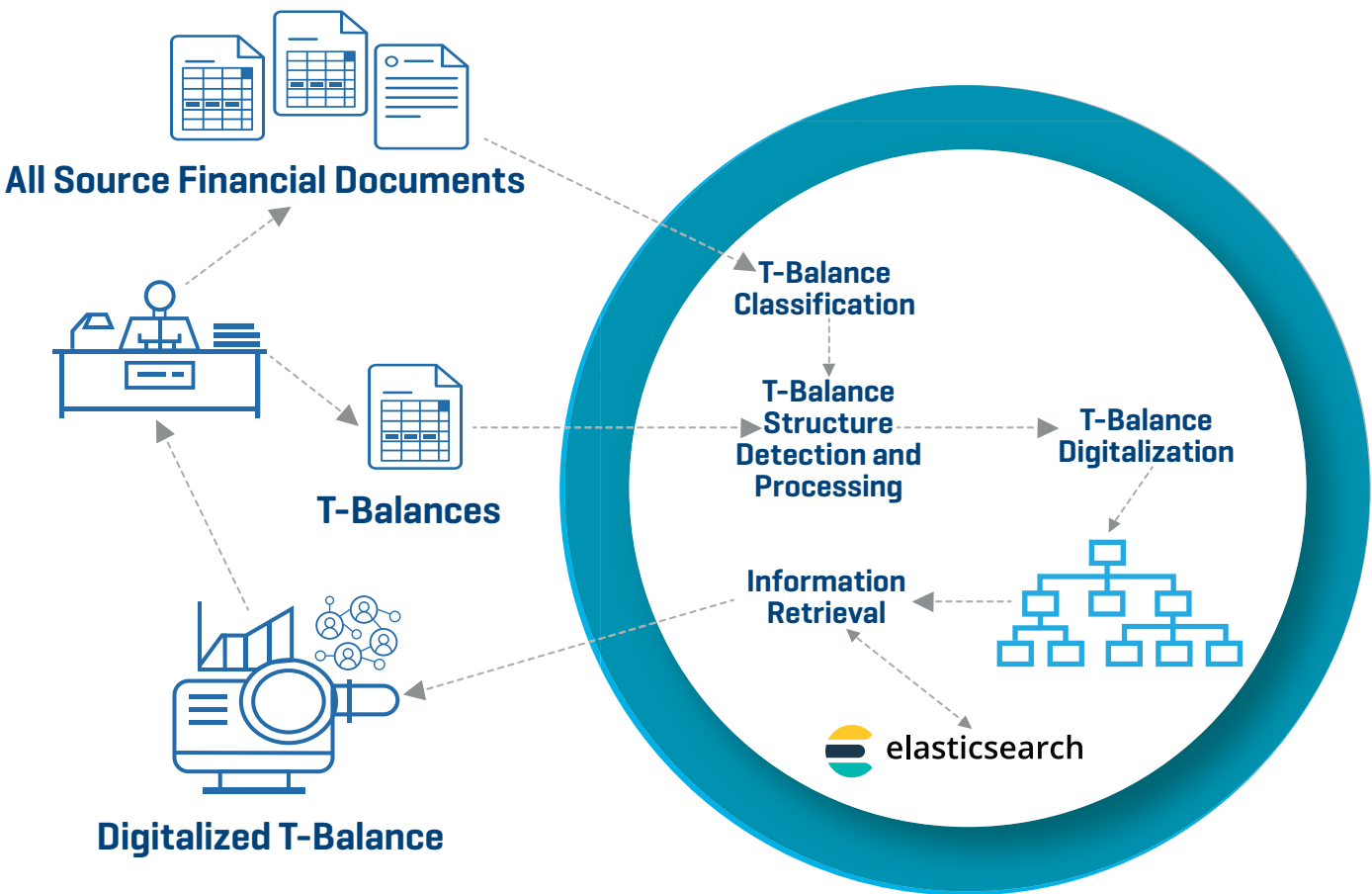


## 4 international awards to FOCA project!



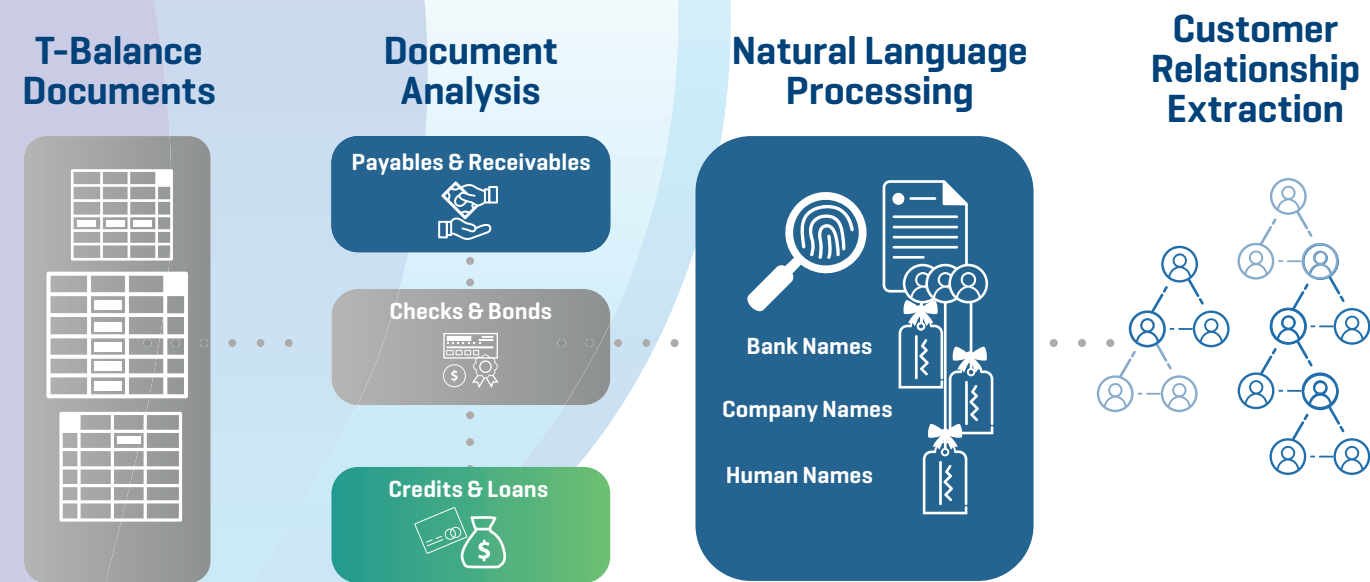
# Digital T-Balance Technical Diagram

## 1. T-Balance Detection and Digitalization



# Digital T-Balance Technical Diagram

## 2. Customer Relationship Extraction



# Items to be Read from T-Balance and Information to be Extracted

<b>102. Banks:</b> Bank Name Rate Maturity <b>120. Trade Receivables:</b> Customer Name City/Region Information <b>320. Trade Payables:</b> Customer Name City/Region Information <b>101. Checks Received:</b> Bank Name Rate CIF Number <b>103. Checks Issued:</b> Bank Name Rate CIF Number <b>108. Other Liquid Assets:</b> Bank Name <b>901. Letter of Credits:</b> Bank Name <b>309. Other Financial Liabilities:</b> Company Name Rate	<b>121. Notes Receivable:</b> Bank Name Rate CIF Number <b>300. Loans:</b> Bank Name Rate <b>100. Cash</b> <b>301. Financial Lease Payables</b> <b>193. Prepaid Taxes and Funds</b> <b>600. Domestic Sales</b> <b>601. Export Sales</b> <b>252. Building</b> <b>12. Inventories</b> <b>131. Receivables from Shareholders:</b> Customer Information Group Information <b>132. Receivables from Subsidiaries:</b> Customer Information Group Information	<b>133. Receivables from Affiliates:</b> Customer Information Group Information <b>240. Financial Fixed Assets:</b> Customer Information Group Information <b>261. Goodwill</b> <b>331. Payables to Shareholders:</b> Customer Information Group Information <b>332. Payables to Subsidiaries:</b> Customer Information Group Information <b>333. Payables to Affiliates:</b> Customer Information Group Information <b>500. Paid-in Capital:</b> Customer Information Group Information <b>159. Advances Given for Purchases:</b> Customer Information
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