

Group 3:

Infini Telco

Telecommunications & Technology
Distribution (TMT)

Data Business Analyst

June 2020 – December 2022



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Executive Summary



Infini Telco, as a leading B2B distributor in Malaysia's TMT sector, plays a vital role in bridging global and local supply chains—delivering telecommunications and technology products to retailers, service providers, and enterprise clients. To strengthen its marketing, sales, and customer service functions, a strategic data-driven initiative will be undertaken, focusing on customer segmentation and product categorization.

Team Division:

- Customer Segmentation: Rannisha & Umi
- Product Categorization : Aravind & Priya



Customer Segmentation

1

Data Understanding

The dataset was first examined to gain familiarity with the structure and key variables, including product identifiers, customer classifications, product categories, gross turnover, and customer count. This step was crucial in defining the scope of analysis and identifying the dimensions for segmentation and revenue breakdown.

2

Data Preparation

Data was cleaned and organized using Power BI's data transformation tools. Column names were standardized, data types were verified, and missing or inconsistent entries were addressed to ensure the dataset was accurate and analysis-ready.

3

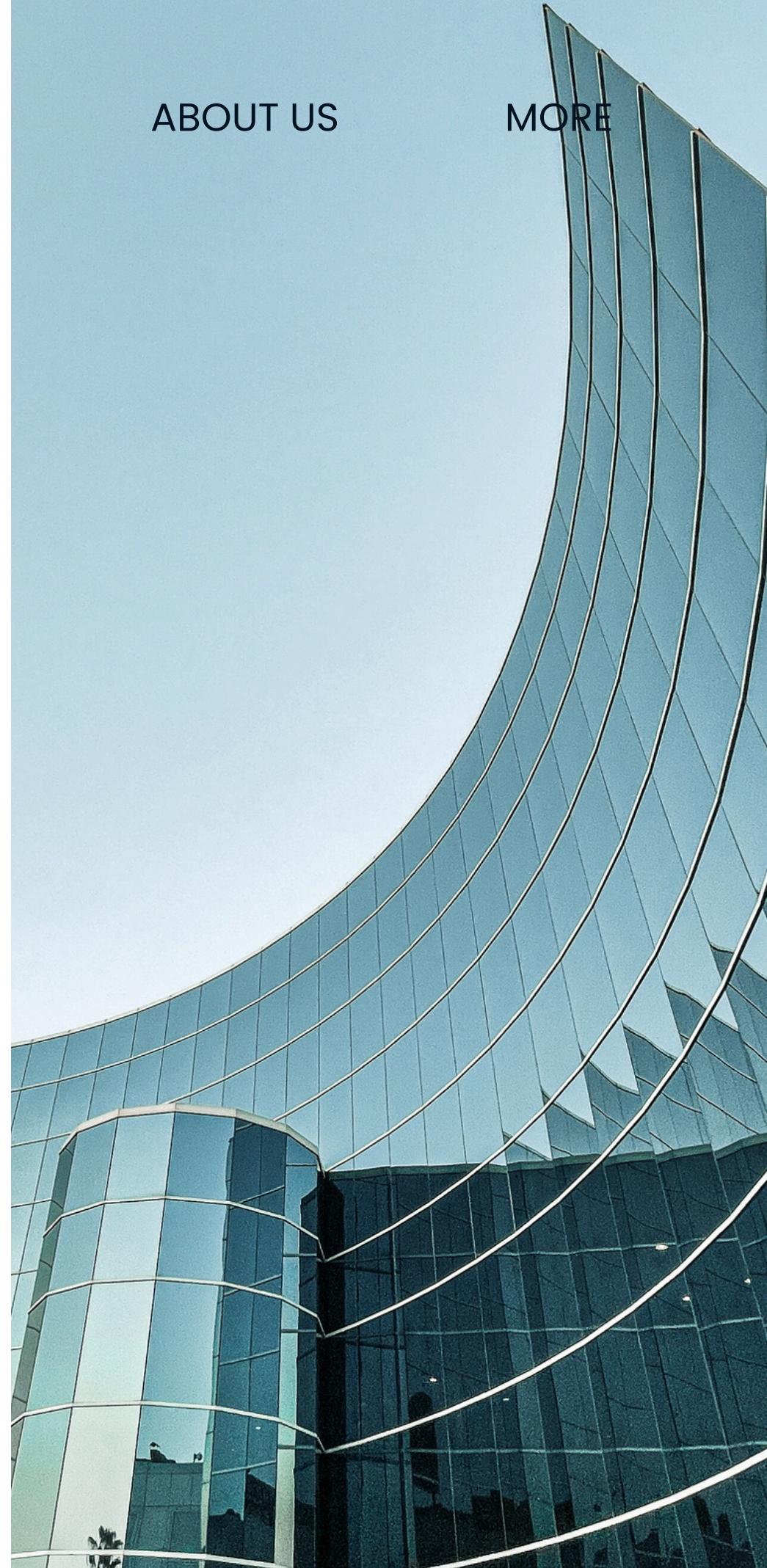
Data Modeling and Metric Aggregation

Key metrics such as total gross turnover, average turnover per cluster, and customer distribution were created. Product categories and customer classifications were used to group data, allowing for meaningful segmentation. Relationships between data fields were structured to support interactive visual exploration.

4

Visualization and Insight Generation

An interactive dashboard was developed to visualize customer segmentation and revenue patterns. Visuals included KPI cards, treemaps, bar charts, and donut charts, enabling detailed comparisons by cluster and product category. Slicers were incorporated to allow users to filter and explore the data dynamically, supporting insight-driven decision making.



CUSTOMER SEGMENTATION

5158

Total Number of Customers

976.66M

Sum of Gross Turnover

325.55M

Average Gross Turnover

Product Category

All

Cluster

All

Sum of Distinct Count of Invoices by Product Category



Average Gross Turnover by Cluster



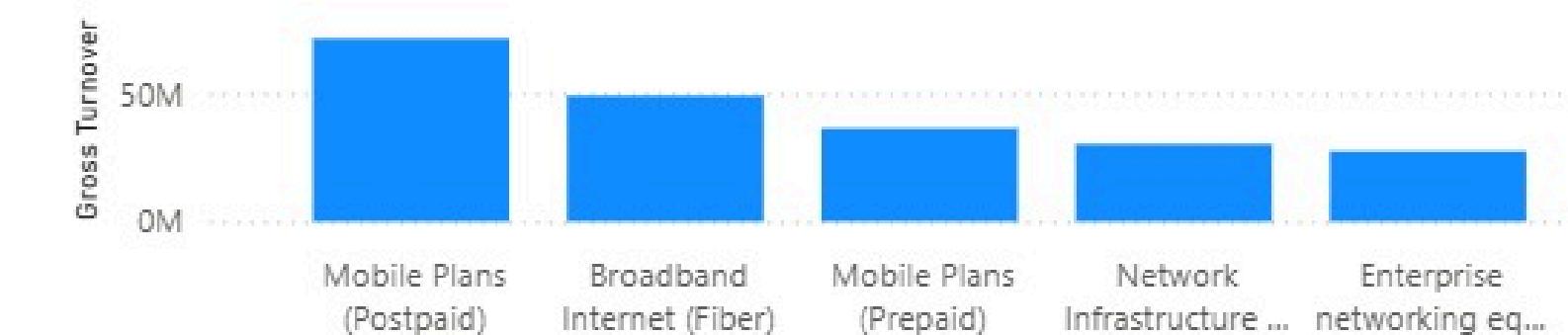
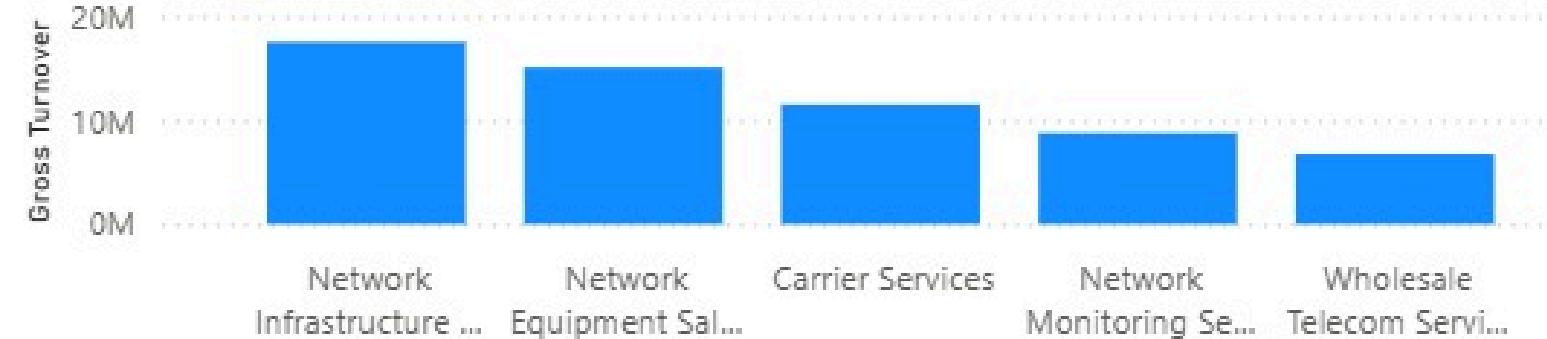
Customer Count by Cluster



Gross Turnover by Product Category (Cluster 0)



Gross Turnover by Product Category (Cluster 1)



Key insights

Cluster 2 Is the Largest and Most Lucrative Segment

With 3,436 customers (66.6%), Cluster 2 generates the highest gross turnover of RM 776.32 M. It also leads in gross turnover per customer (RM 225,933). Product-wise, this cluster heavily spends on Mobile Plans (Prepaid), Network Infrastructure, and Enterprise Networking Equipment, indicating a tech-savvy or business-oriented customer base with consistent demand for mobile and infrastructure services.

Cluster 1 Is a High-Value, Niche Segment

Despite having only 1,059 customers (20.5%), Cluster 1 brings in RM 128.08M with an average revenue per customer of RM 120,941. This cluster is mainly driven by products like Network Infrastructure, Network Equipment Sales, and Carrier Services, suggesting enterprise or industrial clients with high-value transactions focused on infrastructure and connectivity solutions.

Cluster 0 Is the Smallest but Engages with Mass Market Products

Cluster 0, comprising 663 customers (12.9%), contributes RM 72.27M, with the lowest average revenue per customer (RM 109,031). However, it strongly prefers Over-the-Top (OTT) Services, TV & Entertainment, and Postpaid Mobile Plans, indicating a consumer segment drawn to digital content and telecom services, likely B2C users.

Recommendations

Strengthen Loyalty & Premium Services for Cluster 2

Capitalize on this high-value segment by introducing exclusive loyalty programs, priority support, and custom enterprise bundles. Consider cross-selling complementary services like enterprise-level security or hybrid mobile-infrastructure packages.

A 5% increase in customer retention here could yield up to RM 38.8M in retained revenue.

Upsell Advanced Tech Solutions to Cluster 1

Given Cluster 1's preference for carrier and network equipment, develop value-added offerings such as service maintenance contracts, upgrades, or integration solutions tailored to enterprise IT and telecom needs.

Bundling support and maintenance could increase average spend by 8–12%, potentially generating an additional RM 10M–15M.

Run Promotions & Bundles for Cluster 0 to Boost Revenue

Target Cluster 0 with entertainment and OTT service bundles. Leverage seasonal promotions or tiered pricing to increase average spend. This group may also benefit from data-driven upselling toward postpaid or premium OTT subscriptions.



Product Categorization – Aravind & Priya

1

Preparing Product Categorization Data

Aggregate and enrich product-level data to support meaningful visualization and analysis.



	ProductID	GROSS_TURNOVER	AMOUNT	Invoice_count	Main_account_count	ProdCat1	ProdCat2	%Gross_Turnover	Cum_%Gross_Turnover
16312	5733101996	1154840.45	96148	60	33	Network and Infrastructure	Carrier Services	1.37	1.37
19753	7835990100	864082.89	111480	27	4	Network and Infrastructure	Carrier Services	1.03	2.40
16374	5733105976	739366.48	106979	34	14	Network and Infrastructure	Carrier Services	0.88	3.28
16369	5733105918	626607.68	138046	117	53	Network and Infrastructure	Carrier Services	0.74	4.02
19680	7830203818	518765.44	169734	25	2	Cloud and Hosting Services	Data Backup Services	0.62	4.64
...
7886	413111159	1.57	1	1	1	Television and Entertainment	Smart TV Services	0.00	100.00
21865	913083211	1.41	2	1	1	Television and Entertainment	Smart TV Services	0.00	100.00
14083	4454000122	1.30	8	1	1	Devices and Accessories	Network switches	0.00	100.00
18002	747654003	0.86	1	1	1	Mobile Services	Family Mobile Plans	0.00	100.00
13244	4441422004	0.37	2	1	1	Devices and Accessories	Network switches	0.00	100.00

23458 rows × 9 columns

THE LOWER THE CUMULATIVE PERCENTAGE, THE HIGHER THE PRODUCT'S REVENUE IMPACT.

Setting Classification in Power BI

Core: High customer, high turnover

Specialty: Less customers, high turnover

Standard: High customers, low turnover

Long-Tail: Low customer, low turnover

```
1 Classification =
2 SWITCH(
3     TRUE(),
4     MAX([Main_account_count]) > SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold]) &&
5     MAX([Cum_%Gross_Turnover]) <= SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold]), "Core",
6
7     MAX([Main_account_count]) > SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold]) &&
8     MAX([Cum_%Gross_Turnover]) > SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold]), "Standard",
9
10    MAX([Main_account_count]) <= SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold]) &&
11    MAX([Cum_%Gross_Turnover]) <= SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold]), "Speciality",
12
13    MAX([Main_account_count]) <= SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold]) &&
14    MAX([Cum_%Gross_Turnover]) > SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold]), "Long-Tail",
15
16    "Error"
17 )
```

3

Setting Up a Dynamic Threshold Card (Cumulative % Gross Turnover)

GROSS TURNOVER CUMULATIVE % THRESHOLD = GENERATESERIES(0, 100, 1)

CUSTOMER COUNT THRESHOLD = GENERATESERIES(0, 131, 1)

Gross turnover Cumulative % Threshold

50

Customer Count Threshold

5

4

Setting Card for Each Classification

Using Core Classification as example

Core Product Count	303
Core GT	17.49M

```
Core GT =  
VAR CustomerCountThreshold = SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold])  
VAR TurnoverThreshold = SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold])  
RETURN  
CALCULATE(  
    SUM('Product'[GROSS_TURNOVER]),  
    'Product'[Main_account_count] > CustomerCountThreshold,  
    'Product'[Cum_%Gross_Turnover] <= TurnoverThreshold  
)
```

```
Core Product Count =  
VAR CustomerCountThreshold = SELECTEDVALUE('Customer Count Threshold'[Customer Count Threshold])  
VAR TurnoverThreshold = SELECTEDVALUE('Gross turnover Cumulative % Threshold'[Gross turnover Cumulative % Threshold])  
RETURN  
CALCULATE(  
    DISTINCTCOUNT('Product'[ProductID]),  
    'Product'[Main_account_count] > CustomerCountThreshold,  
    'Product'[Cum_%Gross_Turnover] <= TurnoverThreshold  
)
```



visualization

Page 1 – Product Categorization



		Gross turnover Cumulative % Threshold		Customer Count Threshold		
		50		5		
Classification						
Core		Long-Tail		Speciality		Standard
ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER		Sum of Customer Count
2051004642	Core	Security and Privacy	Cybersecurity Solutions	26,451.81		6
3300212150	Core	Devices and Accessories	Data Center Equipment - Rack Solutions	27,602.38		6
3311750104	Core	Mobile Services	Mobile Plans (Prepaid)	26,001.55		6
3351650113	Core	Television and Entertainment	Kids Entertainment Packages	89,541.70		6
3390997115	Core	Network and Infrastructure	Network Design Services	37,743.70		6
3467601861	Core	Security and Privacy	Access Control Solutions	30,443.55		6
380473260	Core	Mobile Services	GPS Tracking Services	30,111.88		6
4327920959	Core	Network and Infrastructure	Wholesale Telecom Services	40,249.48		6
4356922392	Core	Broadband and Internet Services	5G Services	19,348.12		6
4443161297	Core	Network and Infrastructure	Wholesale Telecom Services	35,062.06		6
4486804781	Core	Network and Infrastructure	Wholesale Telecom Services	35,094.81		6
4486804834	Core	Network and Infrastructure	Wholesale Telecom Services	41,848.49		6
5642010602	Core	Gaming and eSports	Live Streaming Services	27,015.12		6
5732112847	Core	Television and Entertainment	Local TV Channels	19,515.27		6
5733102034	Core	Network and Infrastructure	Carrier Services	22,106.58		6
5733110123	Core	Network and Infrastructure	Carrier Services	23,884.56		6
5734000863	Core	Data and Analytics	Big Data Solutions	43,812.45		6
5734000876	Core	Data and Analytics	Big Data Solutions	55,972.35		6
601051200	Core	Communication Tools	Web Conferencing Services	42,622.63		6
704149104	Core	IoT and Smart Solutions	Environmental Monitoring Services	22,039.54		6
704264204	Core	IoT and Smart Solutions	Environmental Monitoring Services	30,804.85		6
Total	Core			17,494,664.90		5516

Case Study

Gross turnover Cumulative % Threshold

50

Why 50% Cumulative Gross Turnover?

Setting a 50% cutoff helps us isolate the top-performing products that contribute to half of the total gross turnover.

Customer Count Threshold

5

Why 5 as Customer Count Threshold?

A threshold of 5 customers is used to differentiate products with wider adoption versus underutilized adoption.

Core - Top 5 Performing Product

Key Insight and Recommendation (Core)

Classification			
Core	Long-Tail	Speciality	Standard

ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER	Sum of Customer Count
5733101996	Core	Network and Infrastructure	Carrier Services	1,154,840.45	33
5733105976	Core	Network and Infrastructure	Carrier Services	739,366.48	14
5733105918	Core	Network and Infrastructure	Carrier Services	626,607.68	53
5733105947	Core	Network and Infrastructure	Carrier Services	496,289.44	45
403222100	Core	Business Solutions	Digital Workspace Solutions	331,891.36	75

ProductID	Category	Subcategory	Insights	Recommendation
5733101996	Network and Infrastructure	Carrier Services	The shift to remote work created a surge in demand for secure, high-capacity connectivity.	Expand Carrier Services for Hybrid Work <ul style="list-style-type: none">- Focus on mid-sized companies that are now using hybrid work setups after the pandemic.
5733105976	Network and Infrastructure	Carrier Services		
5733105918	Network and Infrastructure	Carrier Services		
5733105947	Network and Infrastructure	Carrier Services		
403222100	Business Solutions	Digital Workspace Solutions	Need of different tools for remote work, collaboration, and virtual productivity.	Add advanced features like video conferencing, cloud storage, and admin controls as tiered upgrades to boost revenue per customer.

Speciality - Top 5 Performing Product

Classification			
Core	Long-Tail	Speciality	Standard

ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER	Sum of Customer Count
7835990100	Speciality	Network and Infrastructure	Carrier Services	864,082.89	4
7830203818	Speciality	Cloud and Hosting Services	Data Backup Services	518,765.44	2
JSU 60	Speciality	Broadband and Internet Services	4G Services	482,666.88	3
7524615699	Speciality	Network and Infrastructure	Network Integration Services	426,698.45	1
4356922354	Speciality	Broadband and Internet Services	5G Services	376,477.77	1

ProductID	Category	Subcategory	Insights	Recommendation
7835990100	Network and Infrastructure	Carrier Services	Custom, enterprise-grade infrastructure solutions.	<ul style="list-style-type: none">Offer proactive technical advisoryExplore replication of this custom model for other high-end clients
7830203818	Cloud and Hosting Services	Data Backup Services	Enterprises with strict regulatory or data security	<ul style="list-style-type: none">Offer Data Backup as a managed compliance solution
JSU 60	Broadband and Internet Services	4G Services	Deployed in high-dependency operational environments	<ul style="list-style-type: none">Document successful 4G industrial deployments as marketing strategies
7524615699	Network and Infrastructure	Network Integration Services	A single enterprise client - centralized project	<ul style="list-style-type: none">Launch a “Digital Infrastructure Readiness” Program
4356922354	Broadband and Internet Services	5G Services	Early-stage 5G enterprise deployment	<ul style="list-style-type: none">Launch 5G Innovation Trials

Standard - Top 3 Performing Products

Classification					
	Core	Long-Tail	Speciality	Standard	
ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER	Sum of Customer Count
5642010589	Standard	Gaming and eSports	Live Streaming Services	18,280.71	7
1017033425	Standard	Mobile Services	Mobile Device Management (MDM)	18,173.31	23
403224100	Standard	Business Solutions	Digital Workspace Solutions	18,173.03	11

ProductID	Category	Subcategory	Insights	Recommendation
5642010589	Gaming and eSports	Live Streaming Services	High adoption among youth and content creators, but mostly free features are used	<ul style="list-style-type: none"> Introduce premium streaming enhancements Optimize ads for active streamers.
1017033425	Mobile Services	Mobile Device Management (MDM)	Popular within SMBs, avoiding premium plans	<ul style="list-style-type: none"> Offer free-trial for premium features Offer scalable pricing model
403224100	Business Solutions	Digital workspace Solutions	Commonly used for remote works (WFH), but paid version are less used	<ul style="list-style-type: none"> Integration with other work tools as paid extension Introduce price plans tailored for the users size

Standard - Top 3 Underperforming Products

Classification				
	Core	Long-Tail	Speciality	Standard
ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER
913081103	Standard	Television and Entertainment	Smart TV Services	35.27
913081080	Standard	Television and Entertainment	Smart TV Services	50.53
913081093	Standard	Television and Entertainment	Smart TV Services	56.41

ProductID	Category	Subcategory	Insights	Recommendation
913081103, 913081080 & 913081093	Television and Entertainment	Smart TV Services	Multiple SKUs that offer almost same services User unable to see the benefits of upgrades	<ul style="list-style-type: none"> Offer 1 – 2 SKUs only and have uniqueness of the services. Offer free trial and upgrade for premium features.

Long-Tail - Top 3 Performing Products

Classification						
ProductID	Classification	ProdCat1	ProdCat2	Sum of GROSS_TURNOVER	Sum of Customer Count	
439600547	Long-Tail	Security and Privacy	Network Security Solutions	18,300.32	4	
5733102348	Long-Tail	Network and Infrastructure	Carrier Services	18,293.70	3	
4333901125	Long-Tail	Mobile Services	Mobile Plans (Prepaid)	18,222.99	2	

ProductID	Category	Subcategory	Insights	Recommendation
439600547	Security and Privacy	Network Security Solutions	Complexity of product cause low adoption Cybersecurity demand increases.	<ul style="list-style-type: none">Bundle with cloud/hosting productsRun campaigns to show the importance of network security
5733102348	Network and Infrastructure	Carrier Services	Used by large enterprises	<ul style="list-style-type: none">Create plans for small businessesPartner with resellers to reach more customers
4333901125	Mobile Services	Mobile Plans (Prepaid)	Customers have low loyalty Less unique features compared to other providers	<ul style="list-style-type: none">Add niche plans (Students)Offer game top-up/ loyalty rewards

Long-Tail - Top 3 Worst Performing Products

ProductID	Classification	ProdCat1	ProdCat2	Classification	
				Core	Long-Tail
4441422004	Long-Tail	Devices and Accessories	Network switches	0.37	1
747654003	Long-Tail	Mobile Services	Family Mobile Plans	0.86	1
4454000122	Long-Tail	Devices and Accessories	Network switches	1.30	1

ProductID	Category	Subcategory	Insights	Recommendation
4441422004 & 4454000122	Devices and Accessories	Network switches	Weak market demand/ outdated model Not competitive in pricing and features	<ul style="list-style-type: none"> Replace with new model/ stop selling Partner with network solution providers
747654003	Mobile Services	Family Mobile Plans	Low interest in family plans Limited awareness	<ul style="list-style-type: none"> Restructure family plans with better pricing Promote through family-focused digital campaigns



Thank You.