

Finance and Supply Chain Analytics

AT AtliQ Hardware

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Agenda

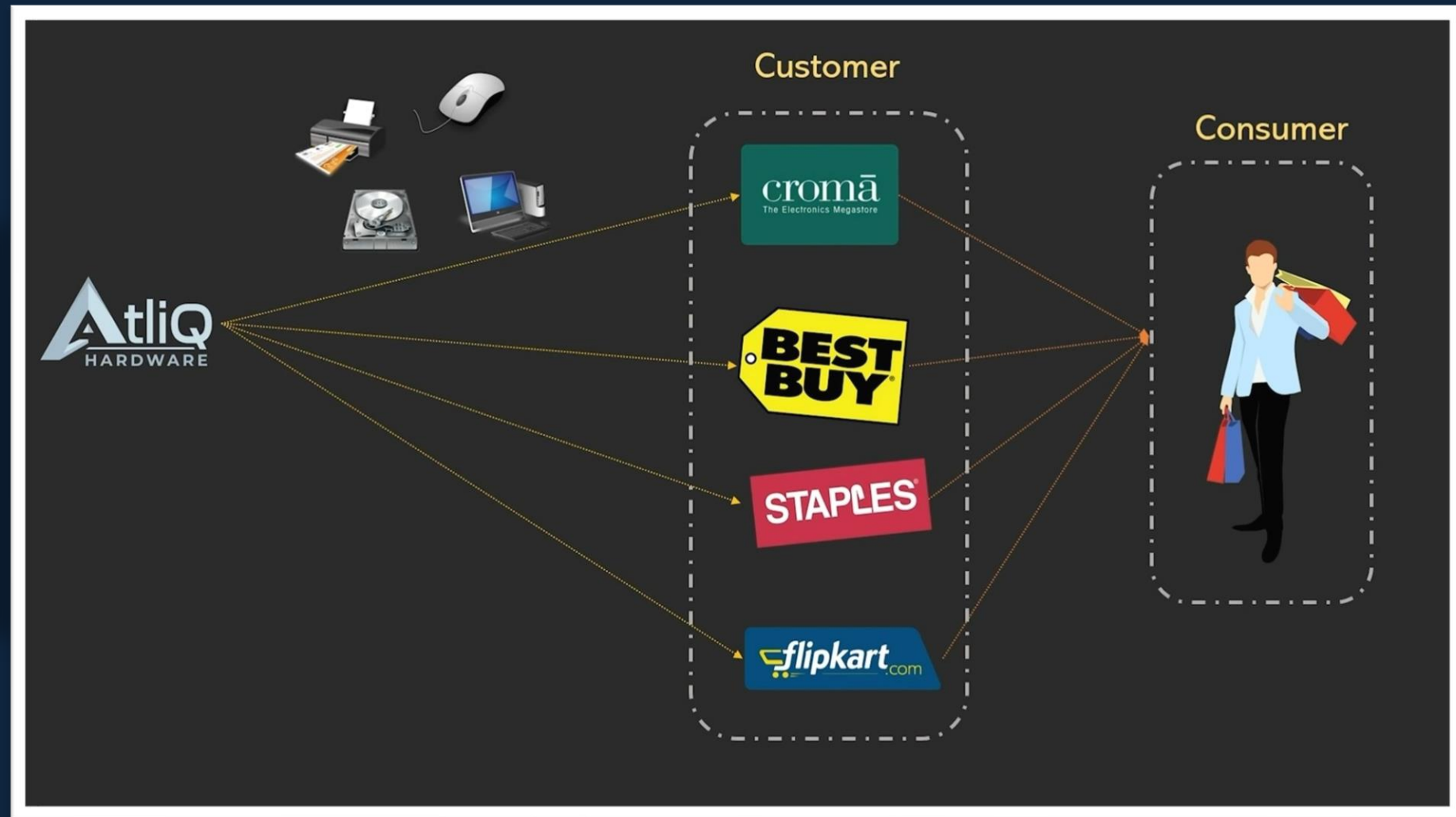


Introduction

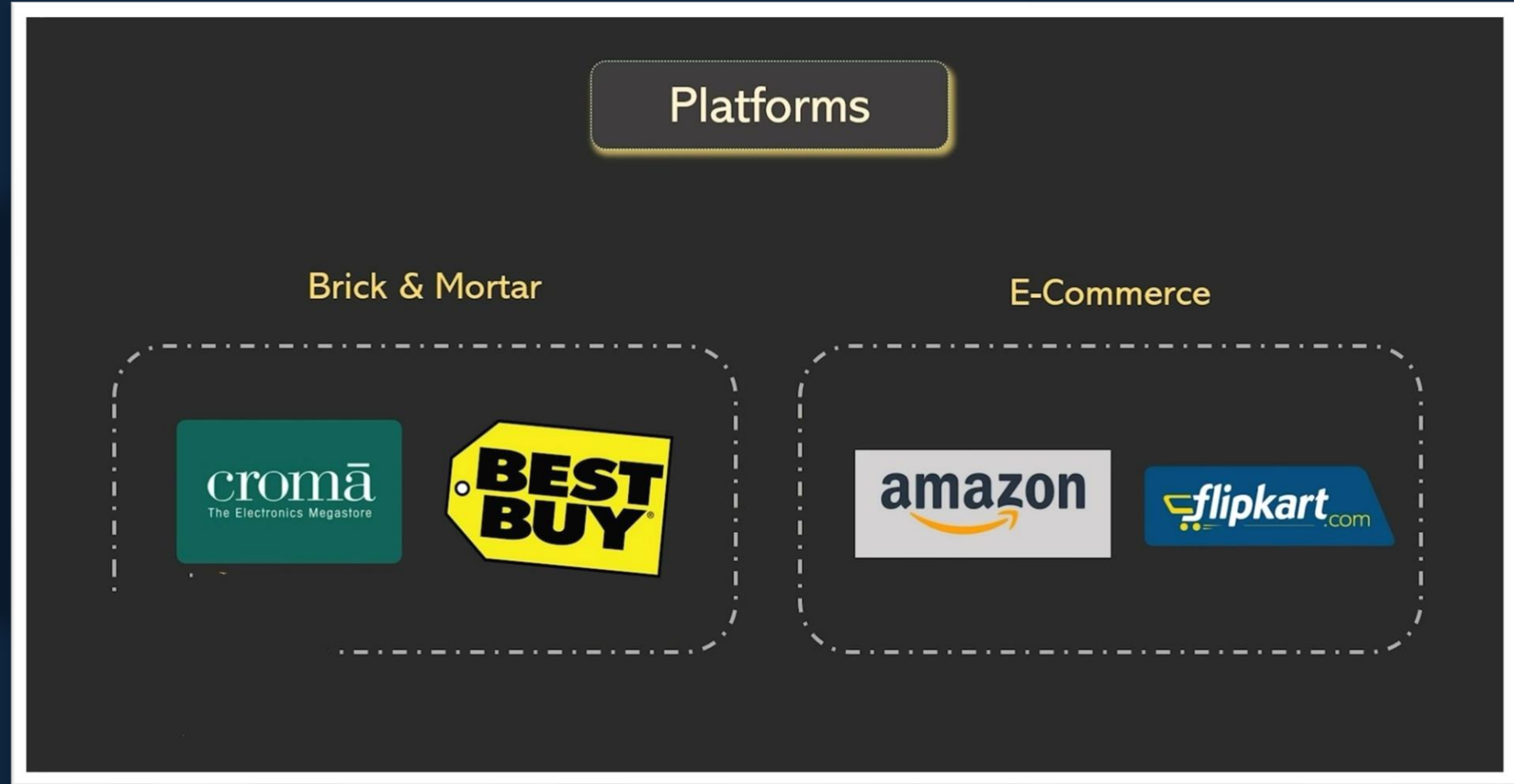
AtliQ Hardware is a consumer goods electronics company that sells hardware like PC, Mouse, Printer and so on to different customers.



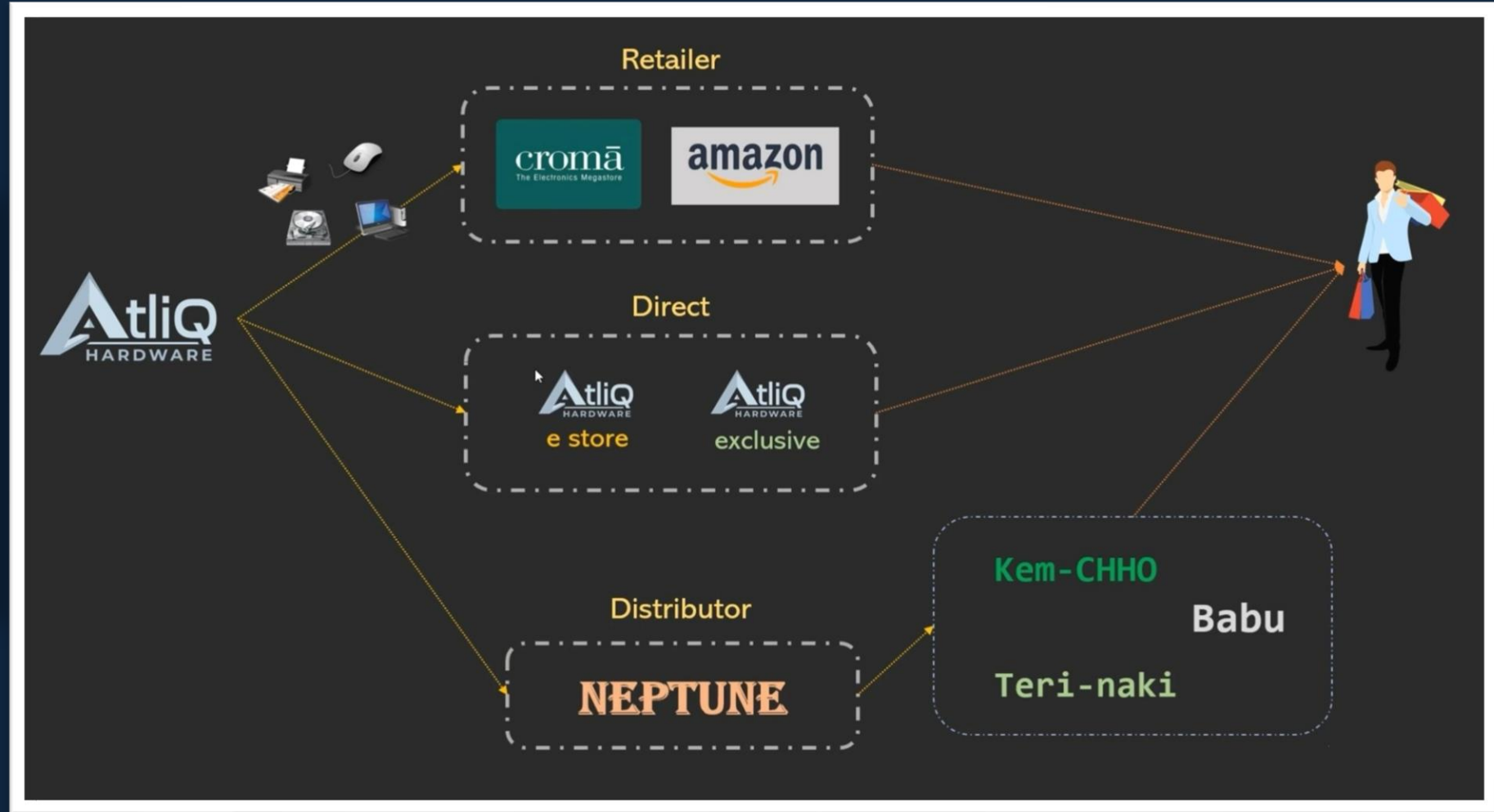
Business Model



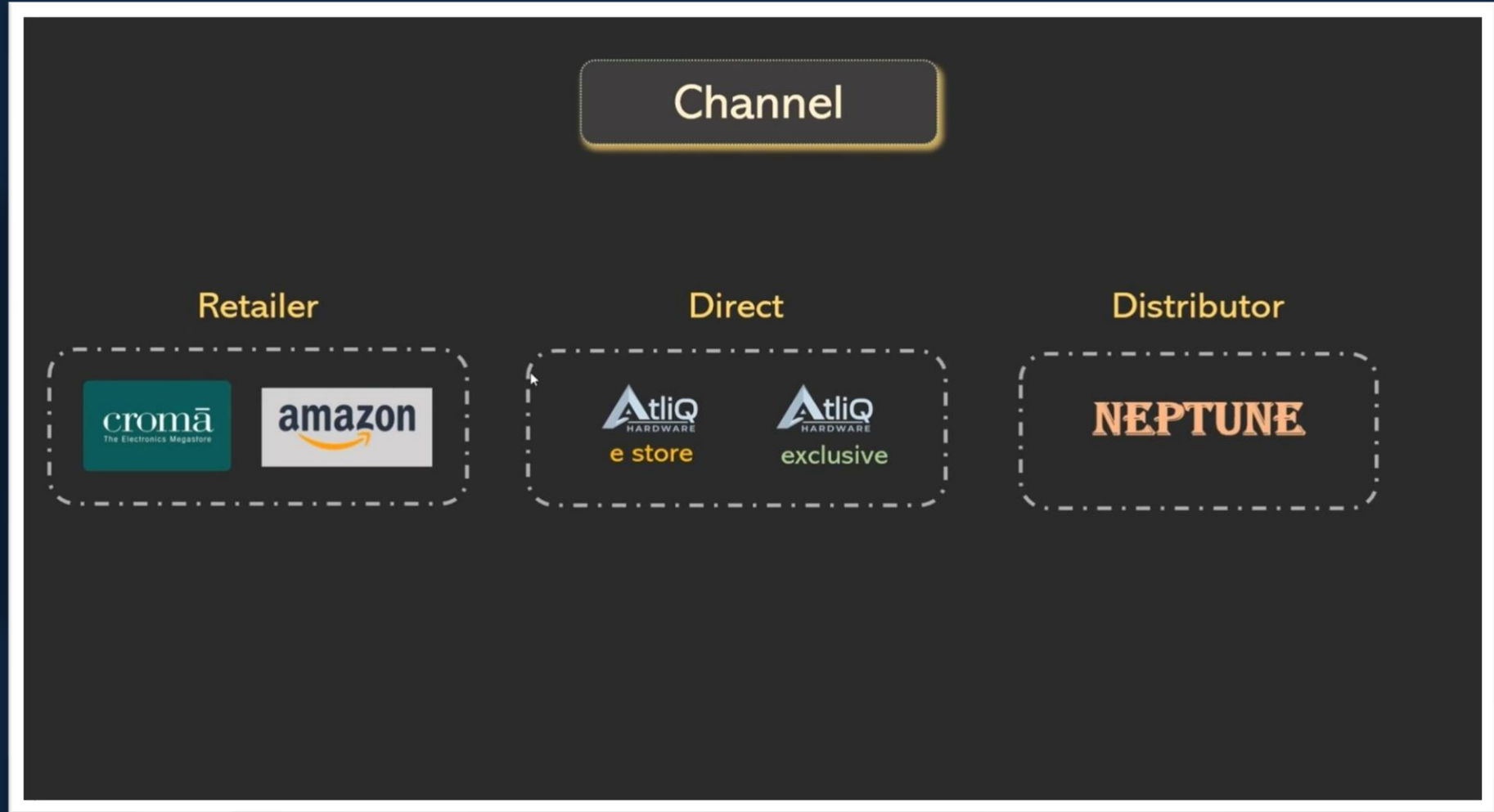
Business Model



Business Model



Business Model



Problem Statement

The growing size of Excel files has caused performance problems, making them unresponsive and inefficient.

To address this issue, the company initiated a project and assembled a team of data analysts. This team will use MySQL as their database management system to extract meaningful insights from the data.

These insights will help the company improve decision-making, optimize operations, and ultimately enhance overall performance.

Project Overview

This project is focused on analyzing and extracting valuable insights from a database that contains information about sales, products, customers, and regions for AtliQ Hardware.

The goal is to answer specific questions related to sales reports, market analysis, customer behavior, and supply chain forecasting.

Queries

Q1: Croma India Product Wise Sales Report for Fiscal Year -2021

```
SELECT
    s.date, s.product_code, p.product, p.variant, s.sold_quantity,
    g.gross_price,
    round(g.gross_price*s.sold_quantity, 2) as gross_price_total
FROM fact_sales_monthly s
join dim_product p
on s.product_code=p.product_code
join fact_gross_price g
on
    g.product_code=s.product_code and
    g.fiscal_year=get_fiscal_year(s.date)
where
    customer_code=90002002 and
    get_fiscal_year(date)=2021
order by date asc
limit 1000000;
```

	date	product_code	product	variant	sold_quantity	gross_price	gross_price_total
▶	2020-09-01	A0118150101	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Standard	202	19.0573	3849.57
	2020-09-01	A0118150102	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Plus	162	21.4565	3475.95
	2020-09-01	A0118150103	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Premium	193	21.7795	4203.44
	2020-09-01	A0118150104	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Premium Plus	146	22.9729	3354.04
	2020-09-01	A0219150201	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Standard	149	23.6987	3531.11
	2020-09-01	A0219150202	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Plus	107	24.7312	2646.24
	2020-09-01	A0220150203	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Premium	123	23.6154	2904.69
	2020-09-01	A0320150301	AQ Zion Saga	Standard	146	23.7223	3463.46
	2020-09-01	A0321150302	AQ Zion Saga	Plus	236	27.1027	6396.24
	2020-09-01	A0321150303	AQ Zion Saga	Premium	137	28.0059	3836.81
	2020-09-01	A0418150103	AQ Mforce Gen X	Standard 3	23	19.5235	449.04
	2020-09-01	A0418150104	AQ Mforce Gen X	Plus 1	82	19.9239	1633.76
	2020-09-01	A0418150105	AQ Mforce Gen X	Plus 2	86	20.0766	1726.59
	2020-09-01	A0418150106	AQ Mforce Gen X	Plus 3	48	19.9365	956.95
	2020-09-01	A0519150201	AQ Mforce Gen Y	Standard 1	138	22.3984	3090.98
	2020-09-01	A0519150202	AQ Mforce Gen Y	Standard 2	72	24.9298	1794.95
	2020-09-01	A0519150203	AQ Mforce Gen Y	Standard 3	38	26.5871	1010.31
	2020-09-01	A0519150204	AQ Mforce Gen Y	Plus 1	149	26.1081	3890.11
	2020-09-01	A0519150205	AQ Mforce Gen Y	Plus 2	29	29.7008	861.32
	2020-09-01	A0519150206	AQ Mforce Gen Y	Plus 3	28	31.2439	874.83
	2020-09-01	A0519150207	AQ Mforce Gen Y	Premium 1	171	32.4427	5547.70

Queries

Q2: Yearly Gross Sales Report for Croma India

```
• select
    get_fiscal_year(date) as fiscal_year,
    sum(round(sold_quantity*g.gross_price,2)) as yearly_sales
from fact_sales_monthly s
join fact_gross_price g
on
    g.fiscal_year=get_fiscal_year(s.date) and
    g.product_code=s.product_code
where
    customer_code=90002002
group by get_fiscal_year(date)
order by fiscal_year;
```

	fiscal_year	yearly_sales
▶	2018	1324097.48
	2019	3555079.19
	2020	6502182.12
	2021	23216512.73
	2022	44638199.11

Queries

Q3: Top 5 Markets by net_sales in Fiscal Year -2021

```
SELECT
    market,
    round(sum(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales
where fiscal_year=2021
group by market
order by net_sales_mln desc
limit 5;
```

	market	net_sales_mln
▶	India	210.67
	USA	132.05
	South Korea	64.01
	Canada	45.89
	United Kingdom	44.73

Queries

Q4: Top 5 Customers by net_sales in Fiscal Year -2021

```
SELECT
    c.customer,
    round(sum(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales n
join dim_customer c
on n.customer_code=c.customer_code
where fiscal_year=2021
group by c.customer
order by net_sales_mln desc
limit 5;
```

	customer	net_sales_mln
▶	Amazon	109.03
	Atliq Exclusive	79.92
	Atliq e Store	70.31
	Sage	27.07
	Flipkart	25.25

Queries

Q5: Top 5 Products by net_sales in Fiscal Year -2021

```
SELECT
    product,
    round(sum(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales
where fiscal_year=2021
group by product
order by net_sales_mln desc
limit 5;
```

	product	net_sales_mln
▶	AQ BZ Allin1	33.75
	AQ Qwerty	27.84
	AQ Trigger	26.95
	AQ Gen Y	23.58
	AQ Maxima	22.32

Queries

Q6: Generate a net sales % report of customers in different regions.

```
with cte1 as(
  select
    c.customer,
    c.region,
    round(sum(net_sales)/1000000,2) as net_sales_mln
  from net_sales s
  join dim_customer c
    on s.customer_code=c.customer_code
  where s.fiscal_year=2021
  group by c.customer, c.region)

select *,
  net_sales_mln*100/sum(net_sales_mln) over (partition by region) as pct_share_region
from cte1
order by region,net_sales_mln desc;
```

	customer	region	net_sales_mln	pct_share_region
▶	Amazon	APAC	57.41	12.988688
	Atliq Exclusive	APAC	51.58	11.669683
	Atliq e Store	APAC	36.97	8.364253
	Leader	APAC	24.52	5.547511
	Sage	APAC	22.85	5.169683
	Neptune	APAC	21.01	4.753394
	Electricalsociety	APAC	16.25	3.676471
	Propel	APAC	14.14	3.199095
	Synthetic	APAC	14.14	3.199095
	Flipkart	APAC	12.96	2.932127
	Novus	APAC	12.91	2.920814
	Expression	APAC	12.90	2.918552
	Girias	APAC	11.30	2.556561
	Vijay Sales	APAC	11.27	2.549774
	Ebay	APAC	11.14	2.520362
	Reliance Digital	APAC	11.10	2.511313

Queries

Q7: Supply Chain – Forecast Accuracy Report.

```
with forecast_err_table as (  
    select  
        s.customer_code,  
        sum(s.sold_quantity) as total_sold_qty,  
        sum(s.forecast_quantity) as total_forecast_qty,  
        sum((forecast_quantity - sold_quantity)) as net_err,  
        sum((forecast_quantity - sold_quantity))*100/sum(forecast_quantity) as net_err_pct,  
        sum(abs(forecast_quantity - sold_quantity)) as abs_err,  
        sum(abs(forecast_quantity - sold_quantity))*100/sum(forecast_quantity) as abs_err_pct  
    from gdb0041.fact_act_est s  
    where s.fiscal_year=2021  
    group by customer_code)  
  
select e.*,  
    c.customer,  
    c.market,  
    if(abs_err_pct > 100, 0, 100-abs_err_pct) as forecast_accuracy  
from forecast_err_table e  
join dim_customer c  
using(customer_code)  
order by forecast_accuracy desc;
```

	customer_code	total_sold_qty	total_forecast_qty	net_err	net_err_pct	abs_err	abs_err_pct	customer	market	forecast_accuracy
▶	90013120	109547	133532	23985	17.9620	70467	52.7716	Coolblue	Italy	47.2284
	70010048	119439	142010	22571	15.8940	75711	53.3139	Atliq e Store	Bangladesh	46.6861
	90023027	236189	279962	43773	15.6353	149303	53.3297	Costco	Canada	46.6703
	90023026	228988	273492	44504	16.2725	146948	53.7303	Relief	Canada	46.2697
	90017051	86823	118067	31244	26.4629	63568	53.8406	Forward Stores	Portugal	46.1594
	90017058	86860	110195	23335	21.1761	59473	53.9707	Mbit	Portugal	46.0293
	90023028	239081	283323	44242	15.6154	155947.3	54.0224	walmart	Canada	45.9776
	90023024	246397	287233	40836	14.2170	155610	54.1755	Sage	Canada	45.8245
	90013124	110898	136116	25218	18.5268	73826	54.2376	Amazon	Italy	45.7624
	90015146	147152	210507	63355	30.0964	114189	54.2448	Mbit	Norway	45.7552
	90017054	84371	114698	30327	26.4407	62483	54.4761	Flawless Stores	Portugal	45.5239
	70027208	33713	47321	13608	28.7568	25784	54.4874	Atliq e Store	Brazil	45.5126
	90015147	154897	223867	68970	30.8085	122100	54.5413	Chiptec	Norway	45.4587
	80001019	1113979	1275248	161269	12.6461	695779	54.5603	Neptune	China	45.4397
	90015144	160074	225637	65563	29.0568	123257	54.6262	Sound	Norway	45.3738
	90009130	103290	110175	6885	6.2491	60225	54.6630	Logic Stores	Newzealand	45.3370
	90015149	142086	212500	70414	33.1360	116172	54.6692	UniEuro	Norway	45.3308
	90021088	224350	323689	99339	30.6896	176975	54.6744	Electricalslytical	United Kin...	45.3256
	90017050	85272	114688	29416	25.6487	62760	54.7224	Electricalsara S...	Portugal	45.2776
	70013125	101658	123428	21770	17.6378	67546	54.7250	Atliq Exclusive	Italy	45.2750
	90021094	208512	301367	92855	30.8113	165043	54.7648	Coolblue	United Kin...	45.2352
	70009134	103747	110791	7044	6.3579	60726	54.8113	Atliq e Store	Newzealand	45.1887

Conclusion

- ✓ AtliQ Hardware achieved record sale in 2022.
- ✓ Amazon led the net sales in the fiscal year 2021 with 109.03M, followed closely by AtliQ Exclusive at 79.92M.
- ✓ The Indian market emerged as the top contributor with 210.67M in net sales during fiscal year 2021, with the USA in second place at 132.05M.
- ✓ The AQ BZ Allin 1 was the top selling product in 2021 with sales of 33.75M.
- ✓ Within the APAC region, Amazon achieved the highest percentage of net sales, contributing 12.99% among other customers in 2021.



Thank you

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