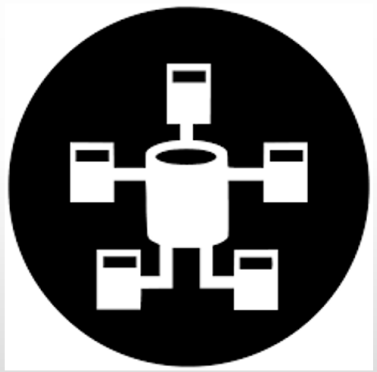
DW Data Modelling and Developing Dashboards using Power BI, Tableau and QlikView Projects

Data Warehouse Architecture



Determine which approach (**Inmon or Kimball**) would be the best approach to design the data warehouse / data mart for the organization.

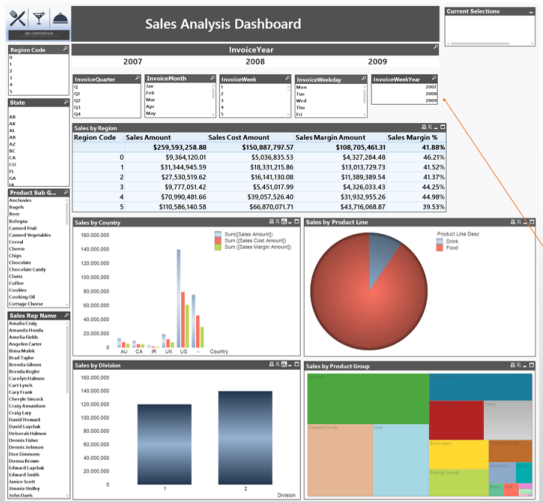
For this demo, we are going with Kimball's (bottom-up) approach and the reason for this choice.

Serves tactical business needs
Maintains user accessibility by allowing business users, to directly query the data and get reasonable response time.

Limited scope of requirements
Data warehouse is used to monitor sales data only, hence the approach will be more scalable and agile.

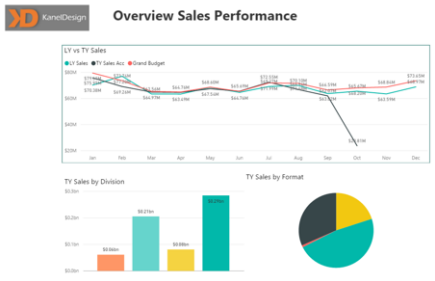
Lower start-up costs
This method requires a smaller team of generalists to set up hence it has a lower start-up costs.

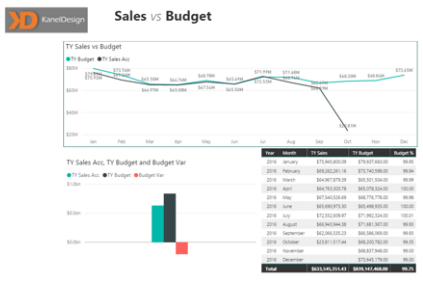
Dashboard Design & Business Requirements

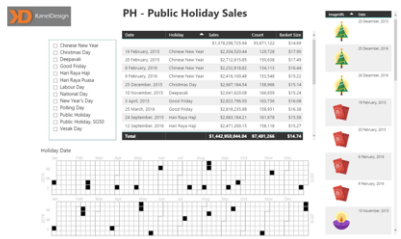


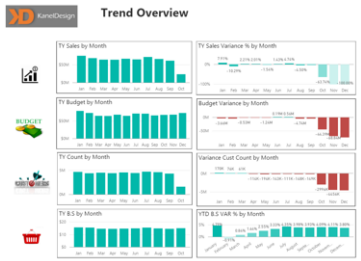
Business users are able to monitor their Sales Amount, Sales Cost Amount, Sales Margin% (i.e. Sales Margin Amount divided by Sales Amount) across many of their business dimension such as Division, Country, Region, State, Sales Rep, Product Line, Product Group, Product Sub Group, Invoice Year, Invoice Quarter, Invoice Month, Invoice Week, Invoice Week Day and Invoice Week Year.

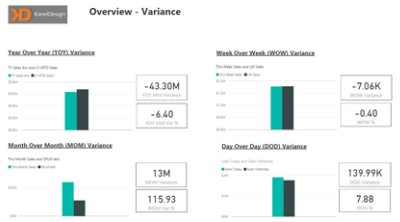
Slicers – to give the business domains the options to select between different measures.
Charts – to visualize the chosen selection.

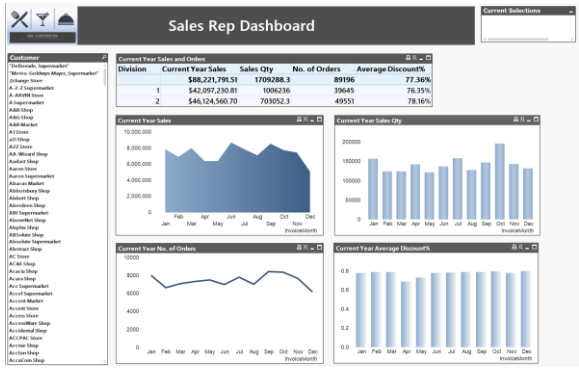












Sales Dashboard

KanelDesign

Selling Platform

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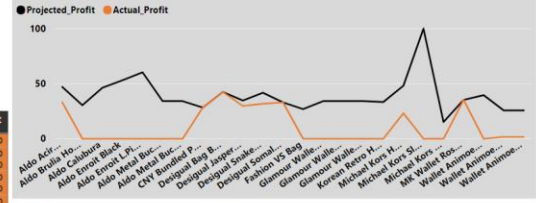
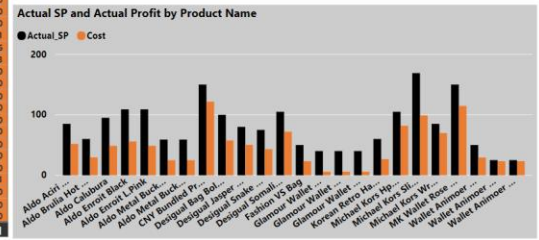
Product_Name	Qty_Order	Qty_Sold	Cost	Total_Cost	Actual_SP	Actual_Profit
Aldo Aciri Sling Bag	1	1	51.90	51.90	85.00	33.10
Aldo Brulia Hot Pink	2		29.57	59.14	60.00	0.00
Aldo Calubura	1		48.69	48.69	95.00	0.00
Aldo Enroit Black	1		55.89	55.89	109.00	0.00
Aldo Enroit L.Pink	1		48.69	48.69	109.00	0.00
Aldo Metal Buckle Bag Black	1		24.81	24.81	59.00	0.00
Aldo Metal Buckle Bag Brown	1		24.81	24.81	59.00	0.00
CNY Bundled Promo (Aldo+MK)	1	1	121.70	121.70	150.00	28.30
Desigual Bag Bols_Glossy	1	1	57.49	57.49	100.00	42.51
Desigual Jasper Lila	1	1	50.24	50.24	80.00	29.76
Desigual Snake Patch Bag	1	1	43.17	43.17	75.00	31.83
Desigual Somalia Bag	1	1	72.00	72.00	105.00	33.00
Fashion VS Bag	2		23.09	46.18	50.00	0.00
Glamour Wallet Black	1		5.84	5.84	40.00	0.00
Glamour Wallet Khaki	1		5.84	5.84	40.00	0.00
Glamour Wallet Pink	1		5.84	5.84	40.00	0.00
Korean Retro Handbag	1		26.61	26.61	60.00	0.00
Michael Kors Hp Wallet	1	1	81.80	81.80	105.00	23.20
Michael Kors Sling Bag	2		99.00	198.00	169.00	0.00
Michael Kors Wristlet Brown	1		69.80	69.80	85.00	0.00
MK Wallet Rose Gold	1	1	114.69	114.69	150.00	35.31
Wallet Animoer Black Big	1		29.40	29.40	50.00	0.00
Wallet Animoer Black Small	1	1	23.30	23.30	25.00	1.70
Wallet Animoer Coffee Small	1	1	23.30	23.30	25.00	1.70
Total	27	10	1,137.47	1,289.13	1,925.00	260.41

Projected Profit and Actual Profit by Product Name



Actual SP and Actual Profit by Product Name

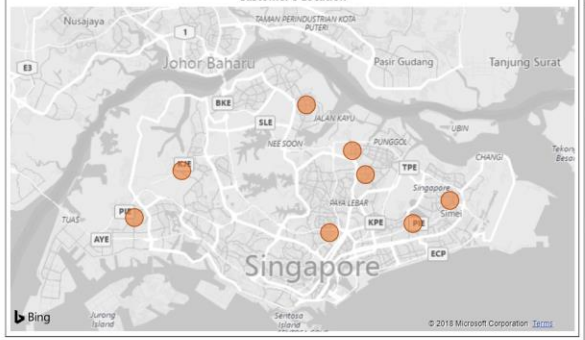


Buyer Dashboard

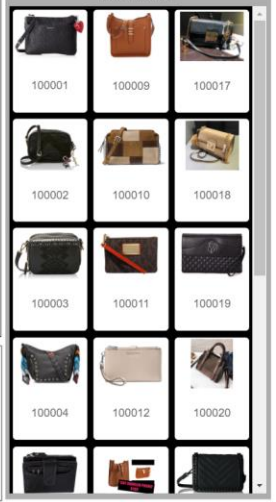
KanelDesign

Date_Listed	Date_Sold
15 November, 2017	17 December, 2017
7 December, 2017	9 December, 2017
7 December, 2017	10 December, 2017
7 December, 2017	17 December, 2017
15 December, 2017	
15 December, 2017	24 January, 2018
18 December, 2017	
18 December, 2017	18 December, 2017
18 December, 2017	7 February, 2018
18 December, 2017	8 February, 2018
25 January, 2018	2 February, 2018
21 February, 2018	

Customer's Location



Product SKUs

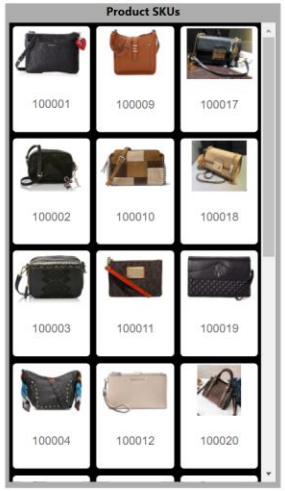


Shipping Days by Product and Shipment Type

Trading Dashboard

KanelDesign

Product SKUs



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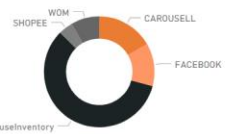
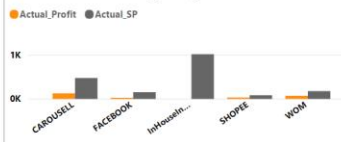
Product_Name	Qty_Order	Qty_Sold	Total_Cost	Actual_Profit
Aldo Aciri Sling Bag	1	1	51.90	33.10
Aldo Calubura	1		48.69	0.00
Aldo Enroit Black	1		55.89	0.00
Aldo Enroit L.Pink	1		48.69	0.00
Aldo Metal Buckle Bag Black	1		24.81	0.00
Aldo Metal Buckle Bag Brown	1		24.81	0.00
CNY Bundled Promo (Aldo+MK)	1	1	121.70	28.30
Desigual Bag Bols_Glossy	1	1	57.49	42.51
Desigual Jasper Lila	1	1	50.24	29.76
Desigual Snake Patch Bag	1	1	43.17	31.83
Desigual Somalia Bag	1	1	72.00	33.00
Glamour Wallet Black	1		5.84	0.00
Glamour Wallet Khaki	1		5.84	0.00
Glamour Wallet Pink	1		5.84	0.00
Korean Retro Handbag	1		26.61	0.00
Michael Kors Hp Wallet	1	1	81.80	23.20
Michael Kors Wristlet Brown	1		69.80	0.00
MK Wallet Rose Gold	1	1	114.69	35.31
Wallet Animoer Black Big	1		29.40	0.00
Wallet Animoer Black Small	1	1	23.30	1.70
Wallet Animoer Coffee Small	1	1	23.30	1.70
Aldo Brulia Hot Pink	2		59.14	0.00
Fashion VS Bag	2		46.18	0.00
Michael Kors Sling Bag	2		198.00	0.00
Total	27	10	1,289.13	260.41

No. of Product Sold



Sales By Selling Platform



Seller Dashboard

KanelDesign

Country

State

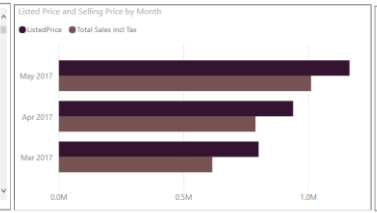
Product_Name	Qty_Order
Aldo Brulia Hot Pink	2
Fashion VS Bag	2
Michael Kors Sling Bag	2
Aldo Aciri Sling Bag	1
Aldo Calubura	1
Aldo Enroit Black	1
Aldo Enroit L.Pink	1
Aldo Metal Buckle Bag Black	1
Aldo Metal Buckle Bag Brown	1
CNY Bundled Promo (Aldo+MK)	1
Desigual Bag Bols_Glossy	1
Desigual Jasper Lila	1
Desigual Snake Patch Bag	1
Desigual Somalia Bag	1
Total	27

Shipping Days by Product and Shipment Type

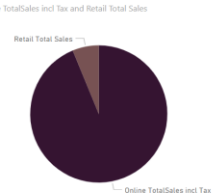
Shipment Status

Item Performance

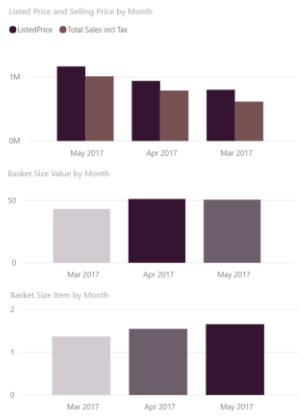
ProductName	Total Sales incl Tax	Sum of Quatity Sold
Geordie Midi Dress	43,536.70	823
Theora Off Shoulder Dress	40,880.40	836
Haniela Funnel Neck Knit Top	39,134.00	1151
Miranna Ruffle Midi Dress	38,922.00	780
Lowene Vest Playsuit	31,104.00	648
Cortina Pleat Camisole	30,112.00	941
Geordie Bustier Top	28,720.00	800
Golnaz Mesh Cutout Dress	28,657.20	668
Menova Crochet Midi Slit Dress	28,655.40	586
Orosia Printed Pleated Midi Dress	26,946.00	540
Atorie Asymmetrical Top	24,992.00	781
Macquina Pleated Midi Jumpsuit	24,480.00	510
Quentin Contrast Ruffle Hem Dress	23,872.10	509
Pamaina Peg Trousers	23,674.00	623
Zhenna Cutout Shoulder Dress	23,091.00	538
Total	**2,893,651.40**	**76194**



SKU_Category	Total Sales incl Tax	Sum of Quatity Sold
HY	339.00	10
ACC	27,848.30	1538
HY0	719.00	70
HY1	10,609.10	554
HY2	434,319.00	13334
HY3	2,359,243.50	57849
LBE	0.00	475
LG0	1,224.00	68
MH0	24,634.10	856
ML0	79.20	8
S01	3,654.50	105
VT0	27,386.80	1202
X96	3,594.90	125
Total	**2,893,651.40**	**76194**

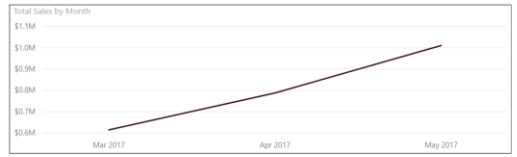


Online Sales Performance



502.48K	-20.82%
total_discounts	TotalDiscounts%

Total Online Sales & Quantity		
Calendar Month Year	Total Sales incl Tax	TotalQuantity
Mar 2017	$614,753.87	19452
Apr 2017	$787,992.20	23844
May 2017	$1,010,790.86	33090
Total	**$2,413,536.93**	**76386**



Customer Performance

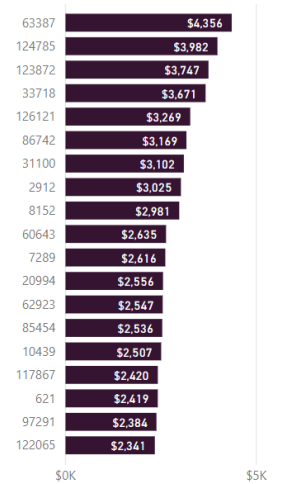
Mar 2017 | Apr 2017 | May 2017

Mon | Tue | Wed | Thu | Fri | Sat | Sun

Top 10 Customer by Month

CustomerID	Mar 2017	Apr 2017	May 2017	Total
63387		2,919.00		**4,356.00**
124785	2,457.30	1,524.90		**3,982.20**
123872	2,199.40			**3,747.10**
33718	1,117.00	428.04	1,124.92	**3,671.14**
126121			2,060.30	**3,269.10**
86742	820.30	1,871.00		**3,169.30**
31100	883.00	1,184.30	1,034.40	**3,101.70**
2912			1,687.61	**3,024.61**
8152		2,981.10		**2,981.10**
60643			1,142.50	**2,635.26**
1122	807.20			
117867			1,623.26	
129224			2,000.00	
20947	972.60			
20994		1,290.80		
32773	799.10			
4375	1,124.58			
6268			1,123.45	
62923		1,288.57		
65871		1,385.43		
7289		1,343.13		
85454			1,232.80	
89135			1,186.10	
93801	924.00			
Total	**12,104.48**	**15,732.05**	**14,055.10**	**33,937.51**

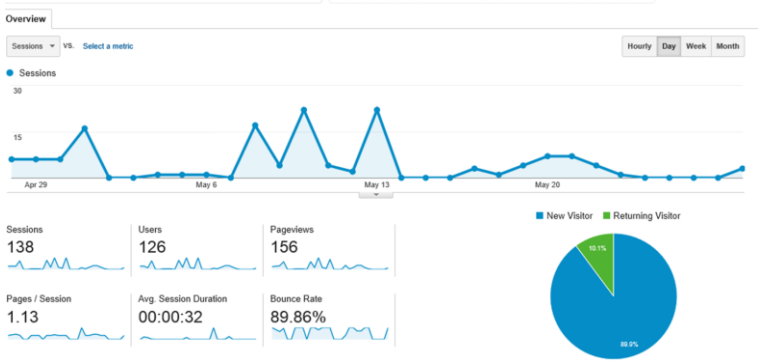
Total Sales by Customer



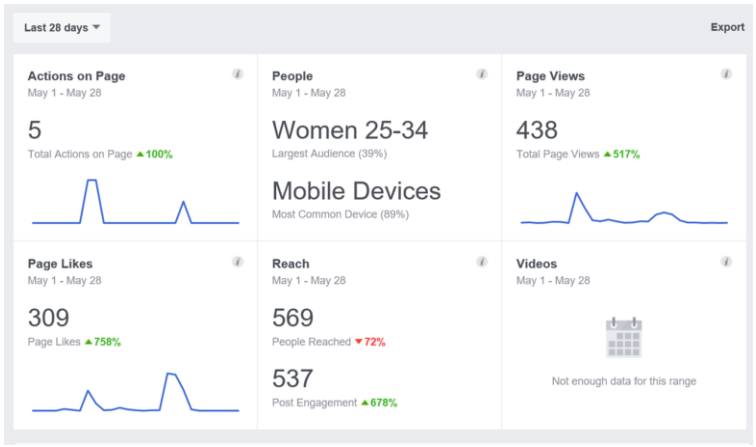
Top 5 Customer by Weekday

CustomerID	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
63387	886.50			1,477.20				**4,356.00**
124785			966.90		1,114.30	868.90		**3,982.20**
123872	737.80	669.80		1,113.30				**3,747.10**
33718	769.10			837.04				**3,671.14**
126121		640.60		951.10	908.90			**3,269.10**
103992							442.50	
109695						409.60		
121959							435.28	
126735						577.30		
129224			2,000.00					
17494							526.20	
2912	671.41	640.50						
31100				898.00				
39214		795.10						
52026							468.30	
60643					822.44			
621			955.00					
62396						481.40		
7289			987.80					
8152	607.50							
85454		579.60						
86742					774.90			
86794							456.20	
93801			945.52					
97291					826.80			
97578						487.40		
Total	**3,672.31**	**3,325.60**	**5,855.22**	**5,276.64**	**4,447.34**	**2,824.60**	**2,328.48**	**19,025.54**

Google Analytics (GA) Dashboard for Website



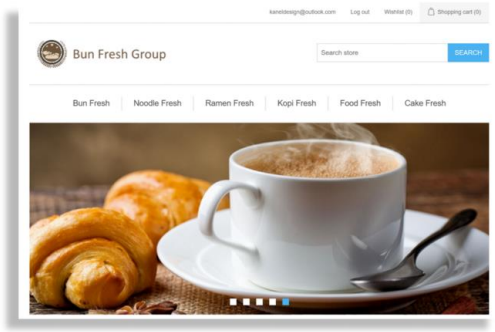
Facebook Insights and Statistics



KPI & Trend line showing Performance by Brand

Total sales	Year										
	2013				2013 Total	2014				2014 Total	Grand Total
	Qtr1	Qtr2	Qtr3	Qtr4		Qtr1	Qtr2	Qtr3	Qtr4		
Brands										2013	2014
BunFresh	239352.6	239731.2	248721.9	234253.8	962059.5	233963.8	242629.3	241933.8	83678.4	802205.3	1764264.8
CakeFresh	356313	368001	368941	367439	1460694	362376	368832	362975	122773	1216956	2677650
FoodFresh	69365	78747	76516	78309	302937	78107	71443	77280	26802	253632	556569
KopiFresh	51088.7	53908.4	53752	50926.3	209675.4	52232.2	52989.4	54095	18175.5	177492.1	387167.5
NoodleFresh	87682	89849	90225	91752	359508	88570	89204	91127	30559	299460	658968
RamenFresh	84617	83532	85591	86555	340295	83438	82908	86664	28942	281952	622247
Grand Total	888418.3	913768.6	923746.9	909235.1	3635168.9	898687	908005.7	914074.8	310929.9	3031697.4	6666866.3

Dashboard tracking performance of Webstore & visitors through GA



Same Period Last Week: 28

Week To Yesterday: 43

Month To Yesterday: 3

Same Day Last Week: 8

Week Over Week Growth: 54 %

Day Over Day Growth: -88 %

Yesterday: 1

Today: 2

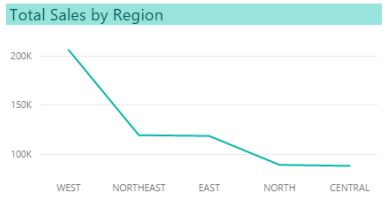
Previous Week: 0

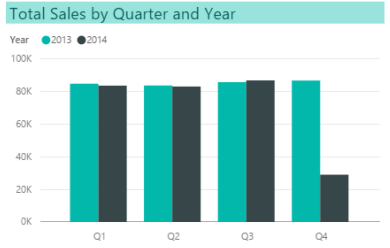
Last Refreshed
7/3/2016 12:00:00 AM

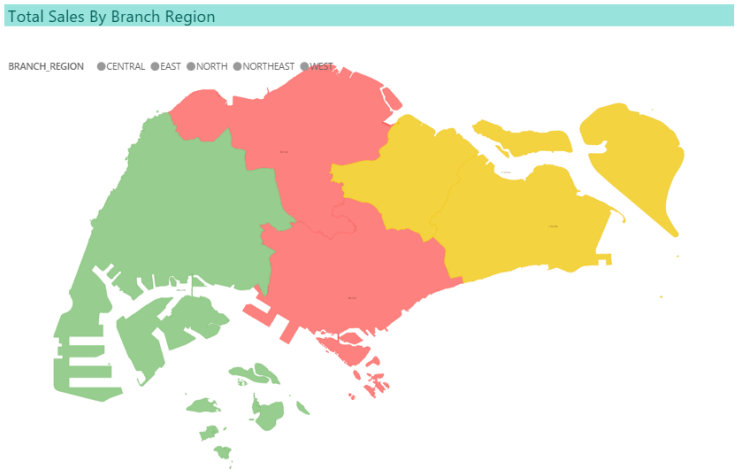
Dashboard of Sales By Brand and Region

BRANCH_REGION	Total Sal...
WEST	206,267.00
NORTHEAST	119,547.00
EAST	118,763.00
NORTH	89,348.00
CENTRAL	88,322.00
Total	**622,247.00**

Brand Name: BunFresh | CakeFresh | FoodFresh | KopiFresh | NoodleFresh | RamenFresh







Branding & Digital Marketing Projects

Project Scope

Phase 1
Brand Audit

Phase 2
Development of Brand & Marketing Strategy

Phase 3
Development of Brand Expression

Strategy

Target Segmentation & Integration (How do you get there)

Loyal & Return Customers
- Personalized & individualized Bundled Promo via e-mails based on the RFM (Recency, Frequency, Monetary)
- Introduce loyalty points/ coupons

New & Potential Customers
- Mass marketing through social media platform & website
- Postings of promotions and invites
- Special price promotions for 'first-time' customers

Islandwide – Singapore
- Tech savvy and convenience seeker (majorities)
- Mobility and convenience functionalities (fuss-free)
- Easy-to-navigate website for all (for all ages)

Integrations
- Integration of CRM, Inventory, Database and E-commerce website
- Marketing e-mails send out – personalized and individualized
- Provide Mobile access

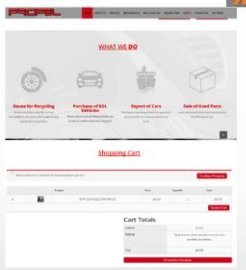
Recommendations

- Irmaya Wedding Gallery need to build up a solid brand awareness with a prominent and consistent strategy to expand and stay relevant in digital technology era
- It is recommended that Irmaya Wedding Gallery focus on marketing strategy to create professional-looking marketing assets by working on product(s)/service(s) photos and videos, website and convey adequate contents in Facebook and Instagram
- Irmaya Wedding Gallery should continue to focus on customer service and sense of resourcefulness to sustain customer satisfaction which can lead to more positive referrals or word-of-mouth, which is very valuable source of lead generation and acquisition

Situation Analysis

Competitors Analysis – E-Commerce (ONLINE)

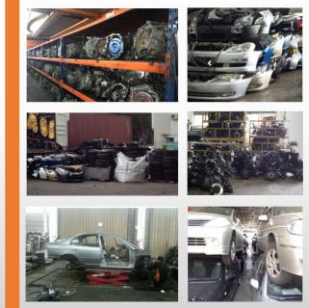
Facebook for Propel Auto Parts
- Social Presence
- Link back which improves Google Ranking



Website & Online Store
- Contact Details
- Services and products information
- Platform for selling/paying online
- Provides Delivery

Strategy

Implementation & Change Management



- Organize and structure the inventory management
- Able to track performance and inventory in real time
- Consider use of barcode system to track inventory
- Provide mobility and convenience to consumers
- Re-strategize and be invested in online business with own shopping store & website
- Transfer the success of your Carousell project to your own site
- Provide a online booking system for pickup of cars to be scrapped or for installation of purchased spare parts
- Provide visibility of testimonials and reviews from customers
- Embrace the online and e-commerce movement
- Provide staffs with easy-to-use tools to enhance their work performance like via App/smart device
- Provide stakeholders with reports and dashboards to enable better control of their business in real-time

Recommendations

- Irmaya Wedding Gallery should consolidate and coordinate marketing efforts to project a consistent brand image to customers, online and offline, and to provide information on the business (Prepare weekly EDMs materials for marketing contents)
- Irmaya Wedding Gallery can consider working with some bloggers/influencers and media to create buzz about wedding services and upcoming events/exhibitions for brand exposure and encourage engagement from the audiences
- Irmaya Wedding Gallery can consider benchmarking against Comel Molek and Anggun by Mastura in terms of execution and creation of marketing content and assets (Digital marketing and content management) where your target audiences are the millennials (Digital generation)

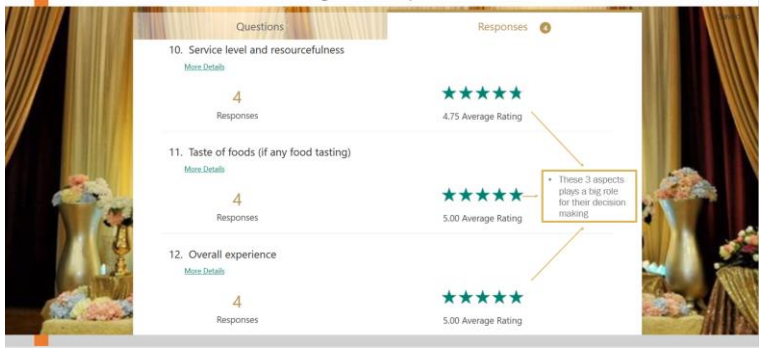
White Angel's 5S Goal Performance

How White Angel Caregivers Consultancy Sell, Serve, Sizzle, Speak and Save today.

1. Through own Website: www.whiteangelcare.com.sg

2. Referral from hospital for after care upon discharged

Survey Responses

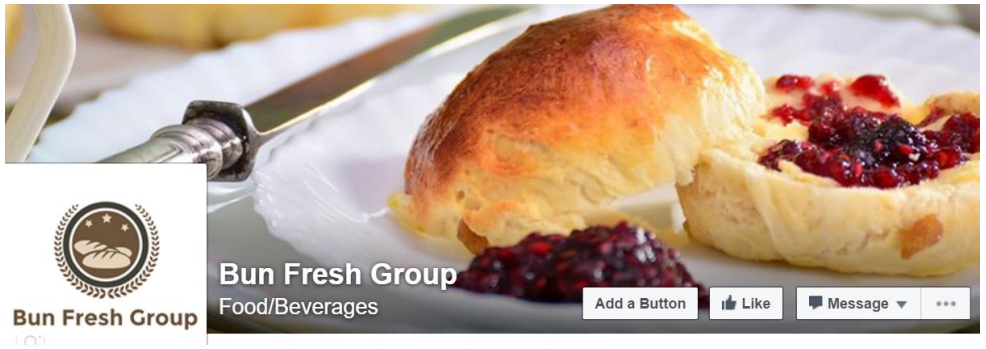


Recommendations

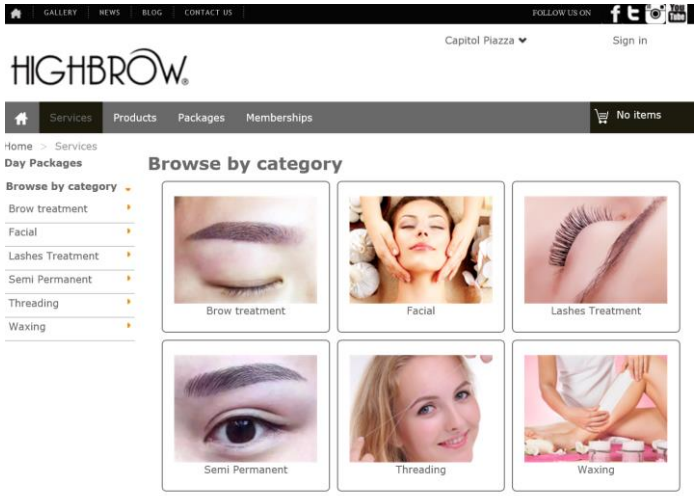
- Decoration and food catering is quoted as an important factor to decision making process and plays as Irmaya Wedding Gallery strength – Irmaya can put more emphasis to continue to upgrade their services on these
- When the website/blog is ready, Irmaya Wedding Gallery should invest in SEO and SEM to make the brand more relevant, searchable and visible to its target audiences and to always track performance
- Irmaya Wedding Gallery should start creating some footprint (digital) to be and stay relevant and searchable to be visible and to instil confidence in customers who are researching for wedding services
- Irmaya Wedding Gallery should also start producing and posting relevant contents (as part of content management) in Facebook and Instagram, and link it to the new website to generate more clicks and be transparent with original contents

CupCake Designs Website visitor tracking with GA & FB.

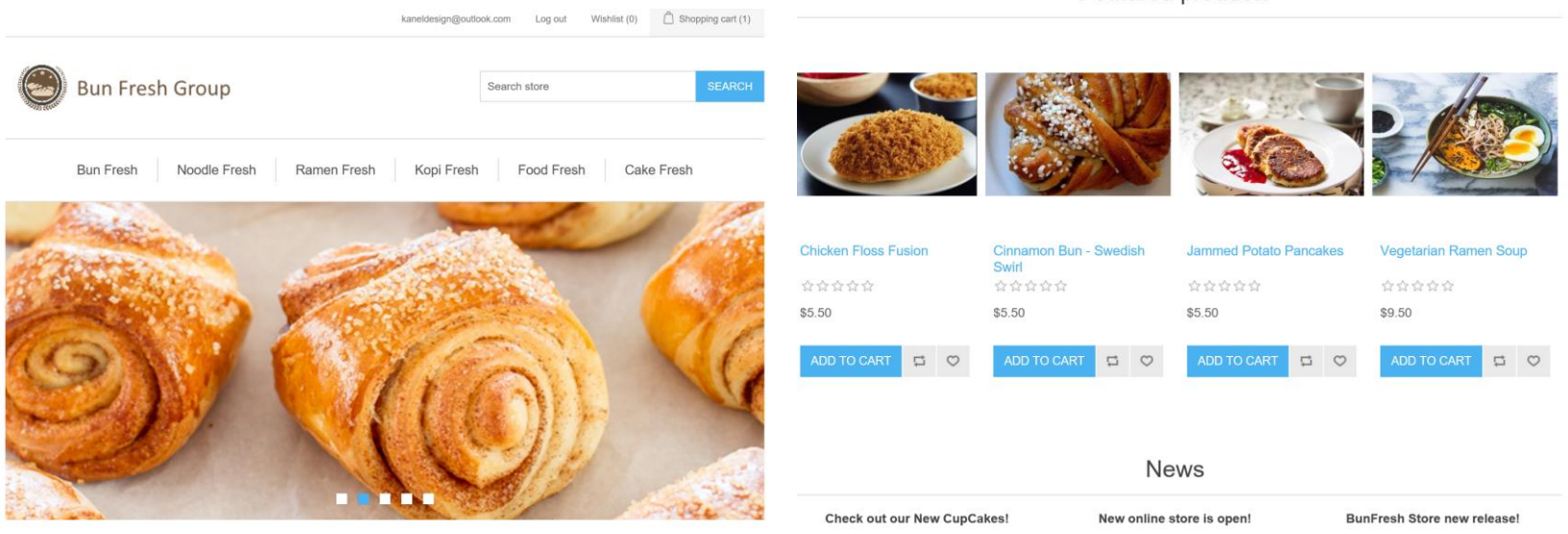
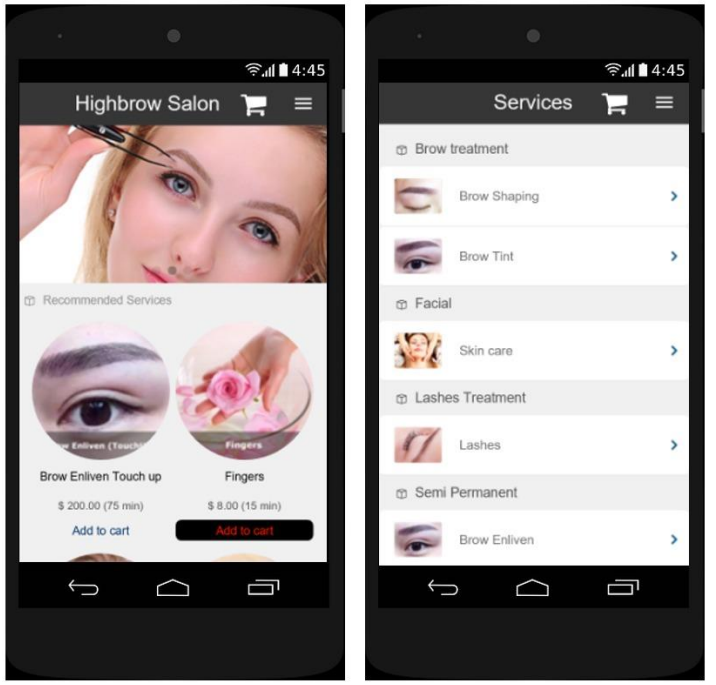
BunFresh Facebook & WebStore Google Analytics update in Power BI



Setup of WebStore



BunFresh WebStore - Cloud based Content Management System



Setup of Mobile App – iOS/Android