



QWASI – VELUX

REWARDS PROGRAM ANALYSIS

TEAM QWASI 2
FORDHAM UNIVERSITY MSMI
APPLIED PROJECT 2018



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Statement of Work – Project Scope

- Use seasonality analysis, membership segmentation analysis and Net Promoter Score analysis to measure:
 - a. Total program performance;
 - b. Performance by nation.
- Conduct predictive analysis for program participation.
- Make recommendations for improving the VELUX Rewards Program.





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Data Size Quick Look

Countries that have run the Rewards Program in previous years (long time).

Region	Data size	Duration
UK (United Kingdom)	11,352 records	7/23/2015 - 8/25/2017
IE (Ireland)	1,161 records	8/4/2015 - 8/23/2017

Countries that start the Rewards Program in 2018 (short time).

BE (Belgium)	1,265 records	4/11/2018 - 6/15/2018
DK (Denmark)	985 records	1/4/2018 - 6/15/2018
AT (Austria)	229 records	5/30/2018 - 6/15/2018

CH (Switzerland)	1 record	10/6/2017
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Hypotheses

H1: Membership registration of VELUX Rewards program is highest in Q2.

H2: Over 60% of VELUX loyal purchasers (5+ purchases) are also active participants in QWASI Rewards Program.

H3: Active participants' NPS should be higher than the rest of participants' in each country.

H4: a. VELUX Rewards programs performance in Austria and Denmark follow a pattern similar to the ones that previously launched in UK and IE.

b. The program past performance will provide indications of future performance.



H1: Membership registration of VELUX Rewards Program is highest in Q2.

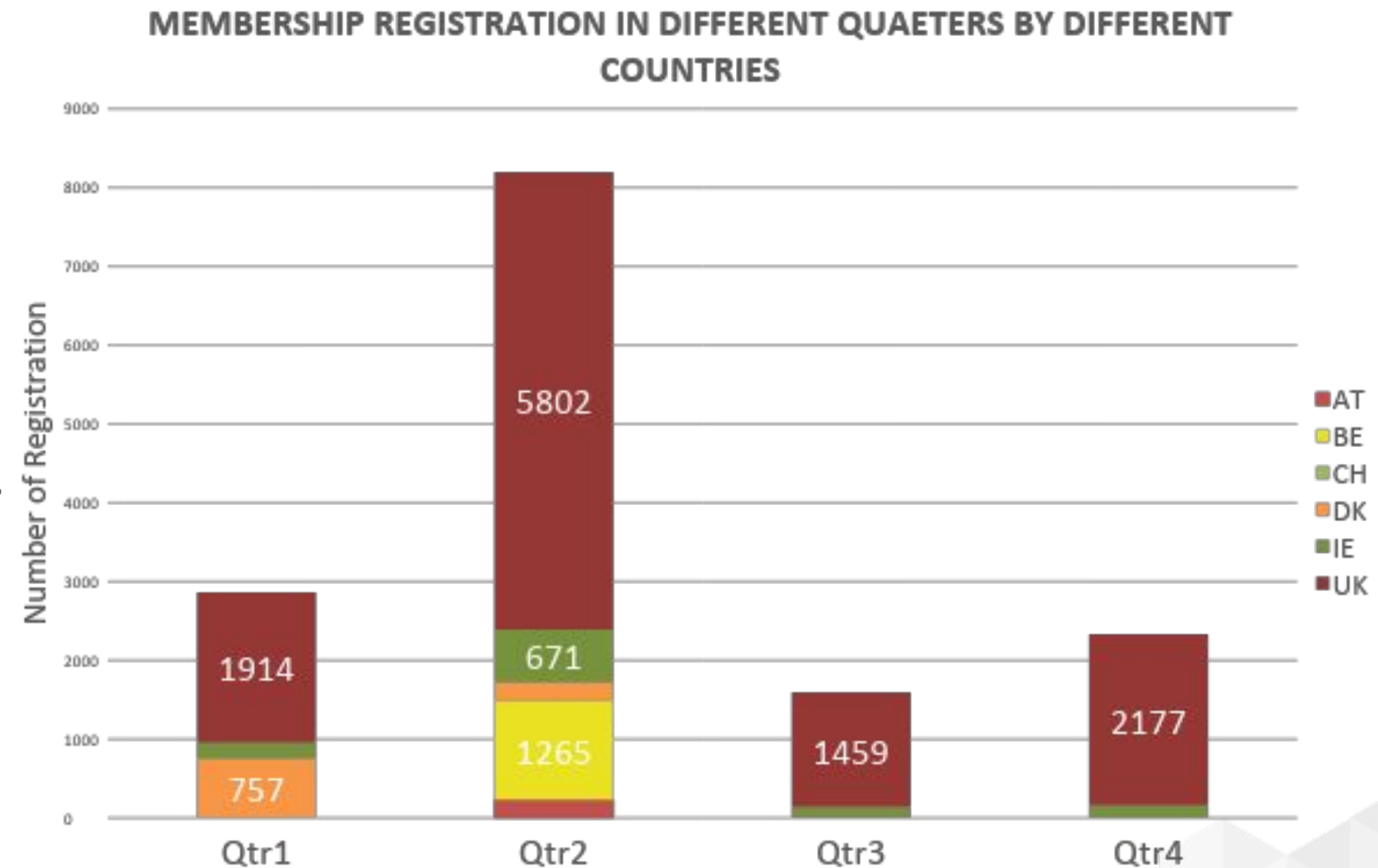
Methodology: Seasonality Analysis of Membership Registration

Seasonality Analysis

Q2 has the highest number of registrations, which means H1 is accepted.

Key Findings:

- For UK and IE, Q2 has the largest registration number.
- For DK, Q1 has the largest registration number.
- For BE and AT, registrations all happened in Q2.





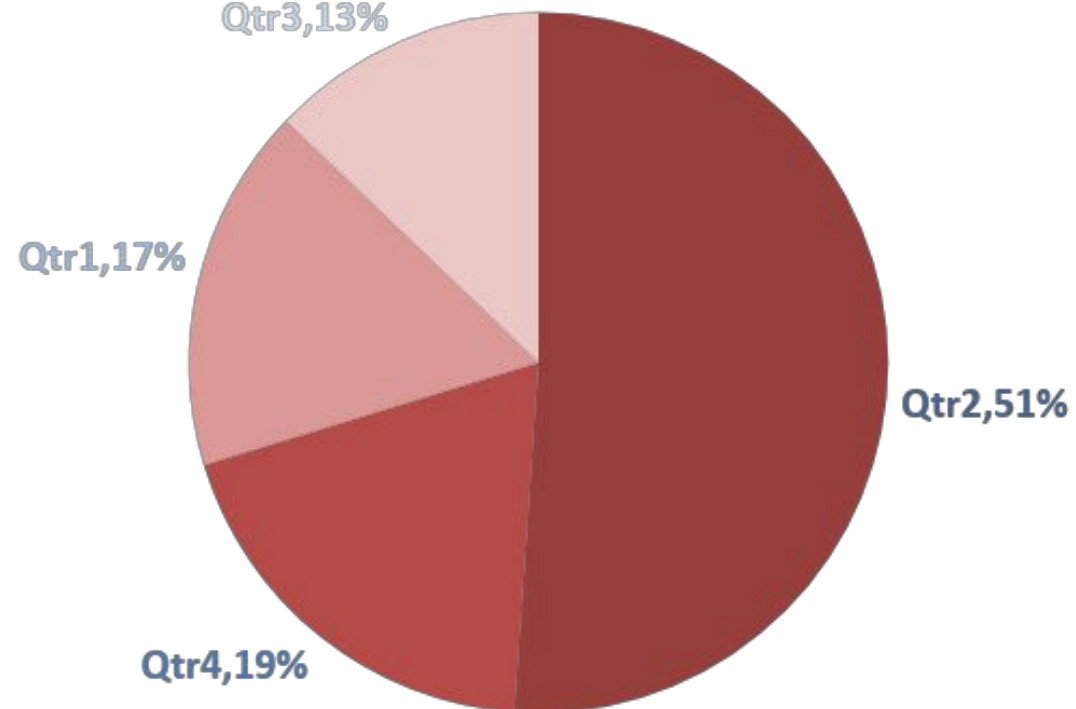
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What Makes Q2 So Successful?

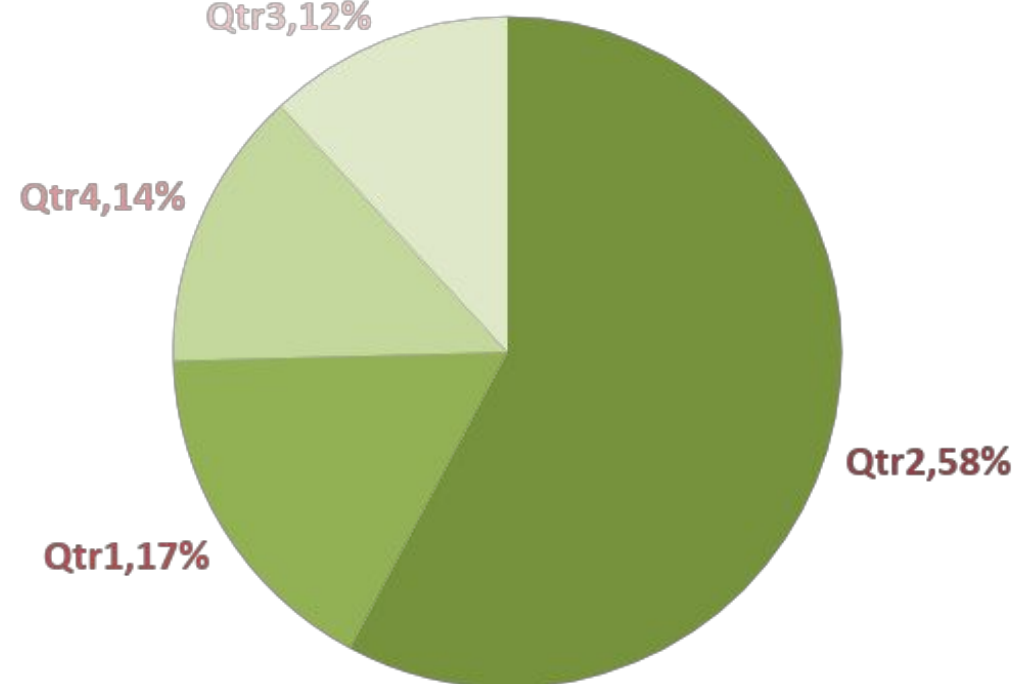
Number of New Registration - UK

Qtr3,13%

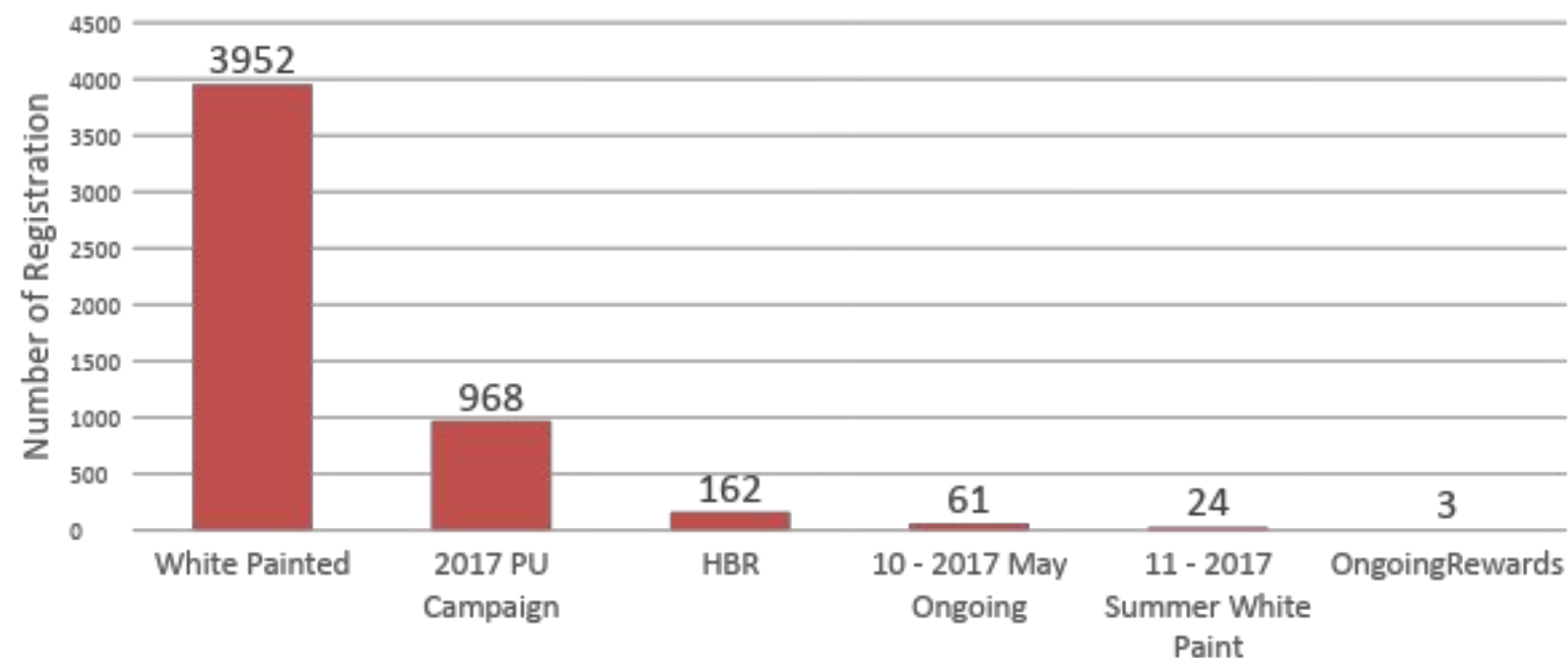


Number of New Registration - IE

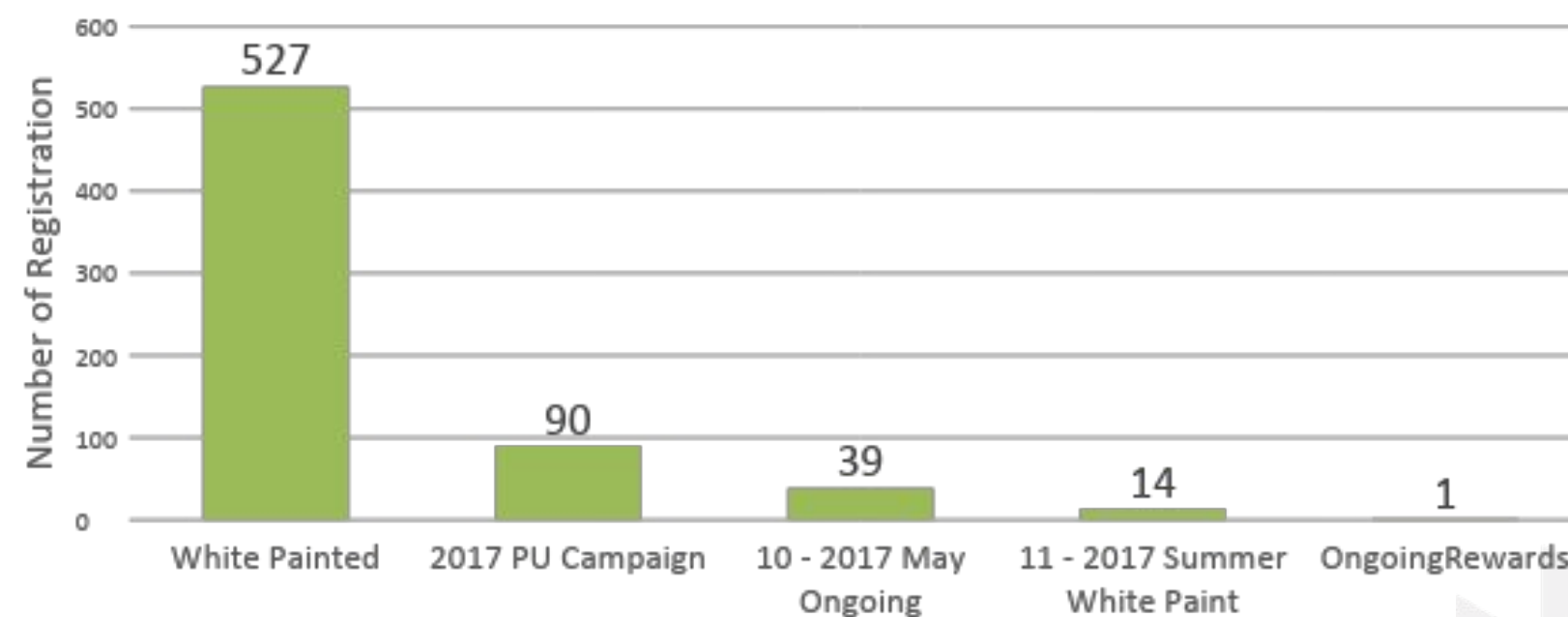
Qtr3,12%



MEMBERSHIP REGISTRATION FROM EACH CAMPAIGN IN Q2 - UK



MEMBERSHIP REGISTRATION FROM EACH CAMPAIGN IN Q2 - IE



- For UK and IE, the Campaign “**White Painted**” contributed the most membership registration in Q2, 2016.

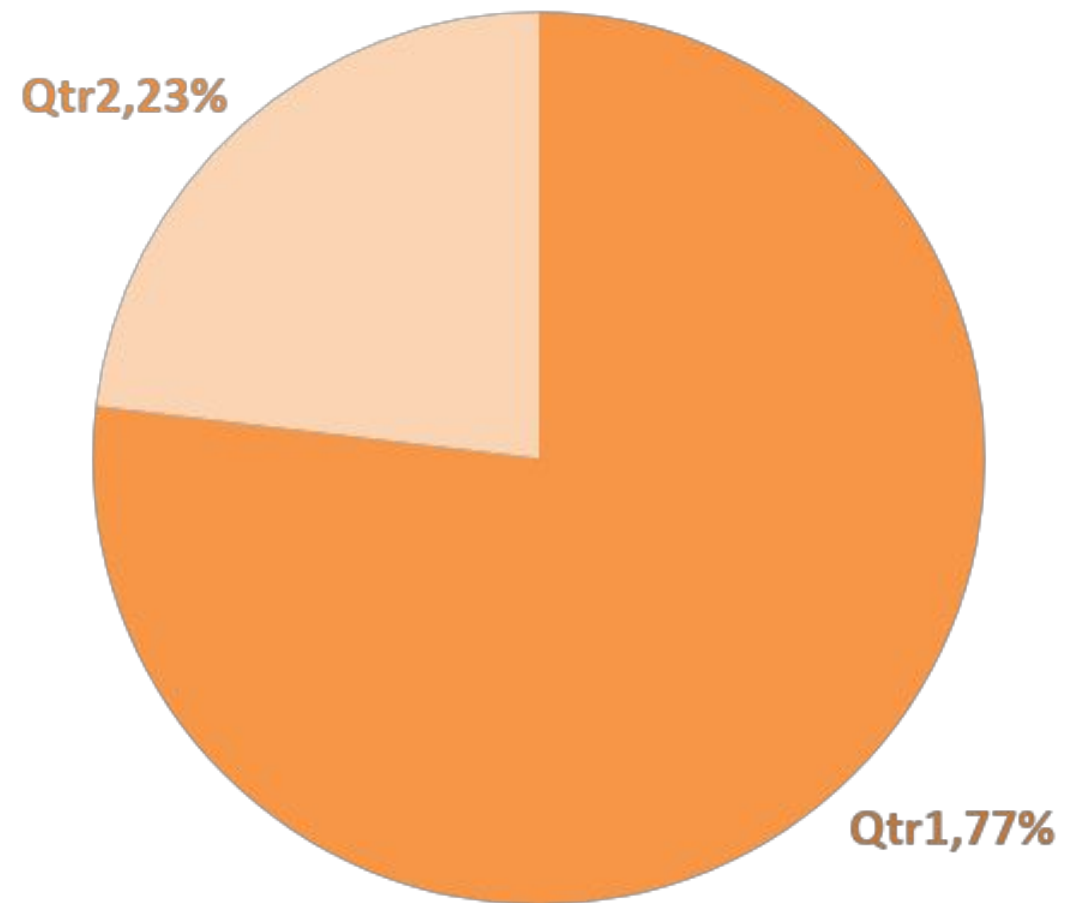


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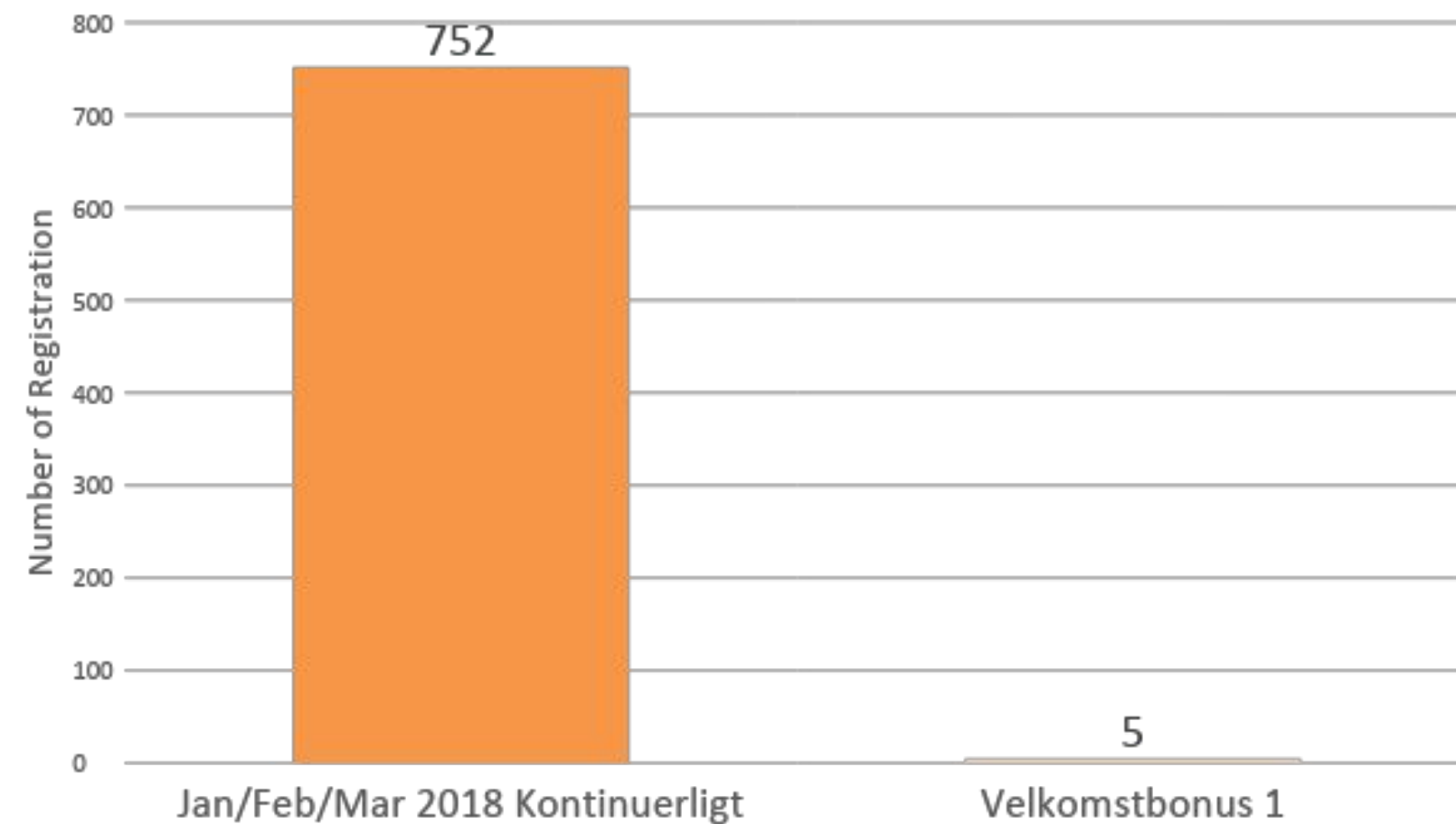


What Makes Denmark Different?

Number of New Registration - DK



MEMBERSHIP REGISTRATION FROM EACH CAMPAIGN IN Q1 - DK



- For DK, the reason for higher membership registration in Q1 is because of campaign “**Jan/Feb/Mar 2018 Kontinuerligt (Continuously)**”, which attracted 752 new membership registration in 2018 Q1.



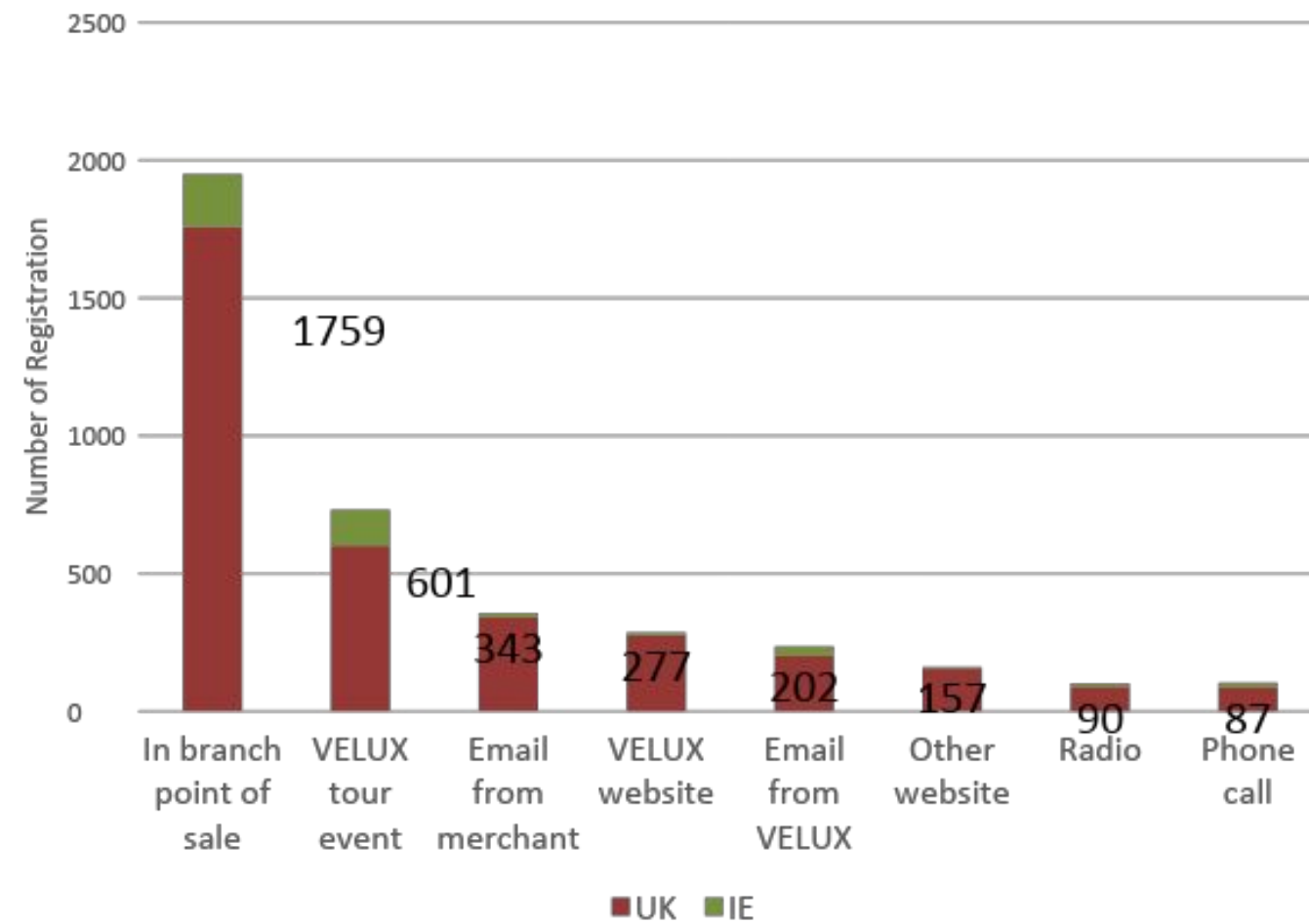


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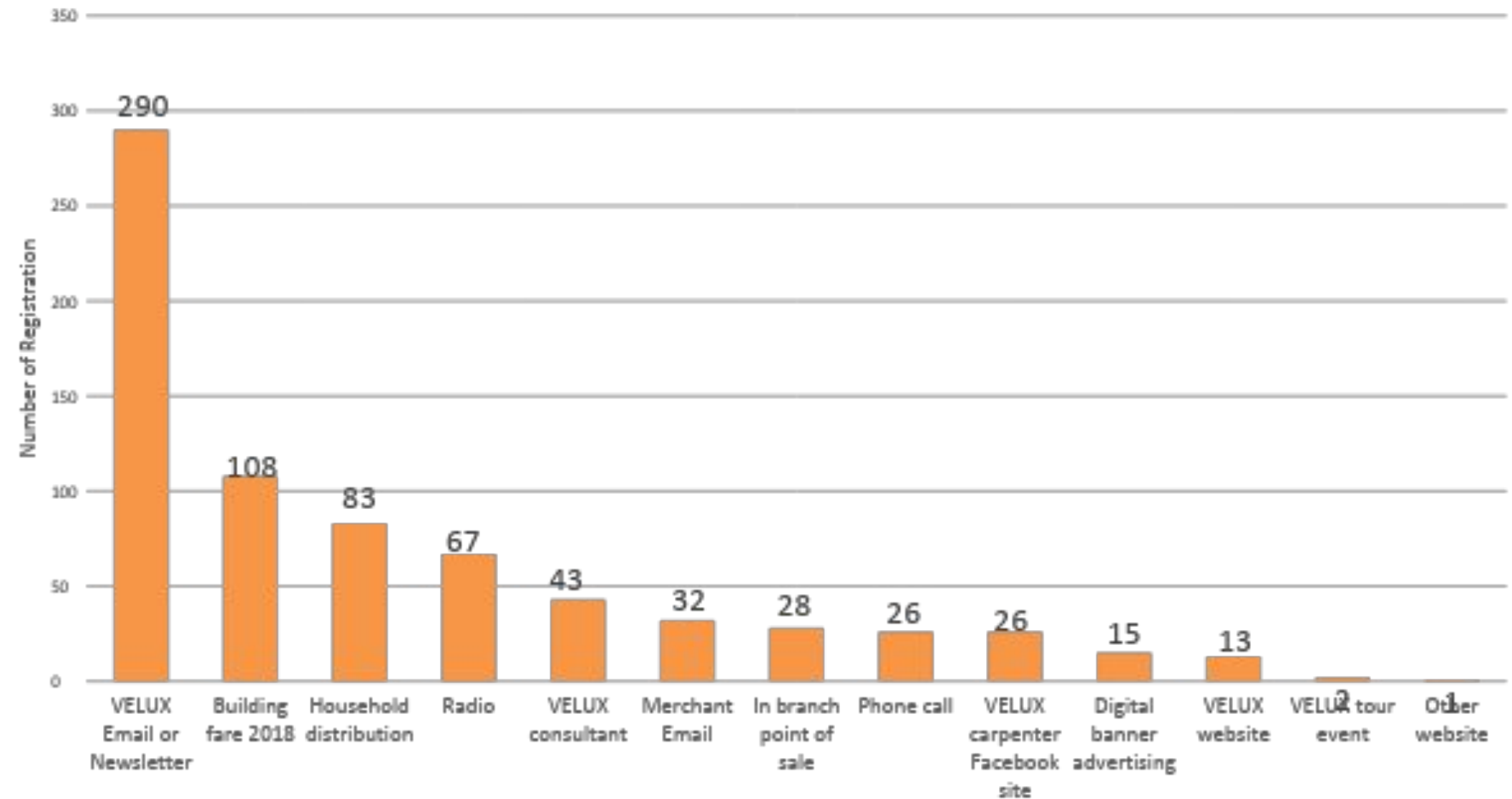
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Other Factors for High Registrations

Sign-Up Motivator of UK & IE in Q2



Sign-Up Motivator of DK in Q1



Key Findings:

- The most effective sign-up motivator for UK and IE in Q2 is **In branch point of sale**;
- The most effective sign-up motivator for DK in Q1 is **VELUX Email or Newsletter**.



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H2: Over half of VELUX loyal purchasers (5+ purchases) are also active participants in VELUX Rewards Program.

Methodology:

- Membership segmentation analysis based on RFM model

- $$P = \frac{\text{Members who are both loyal purchasers and active participants}}{\text{Loyal purchasers}} * 100\%$$



How to Find Active Participants?

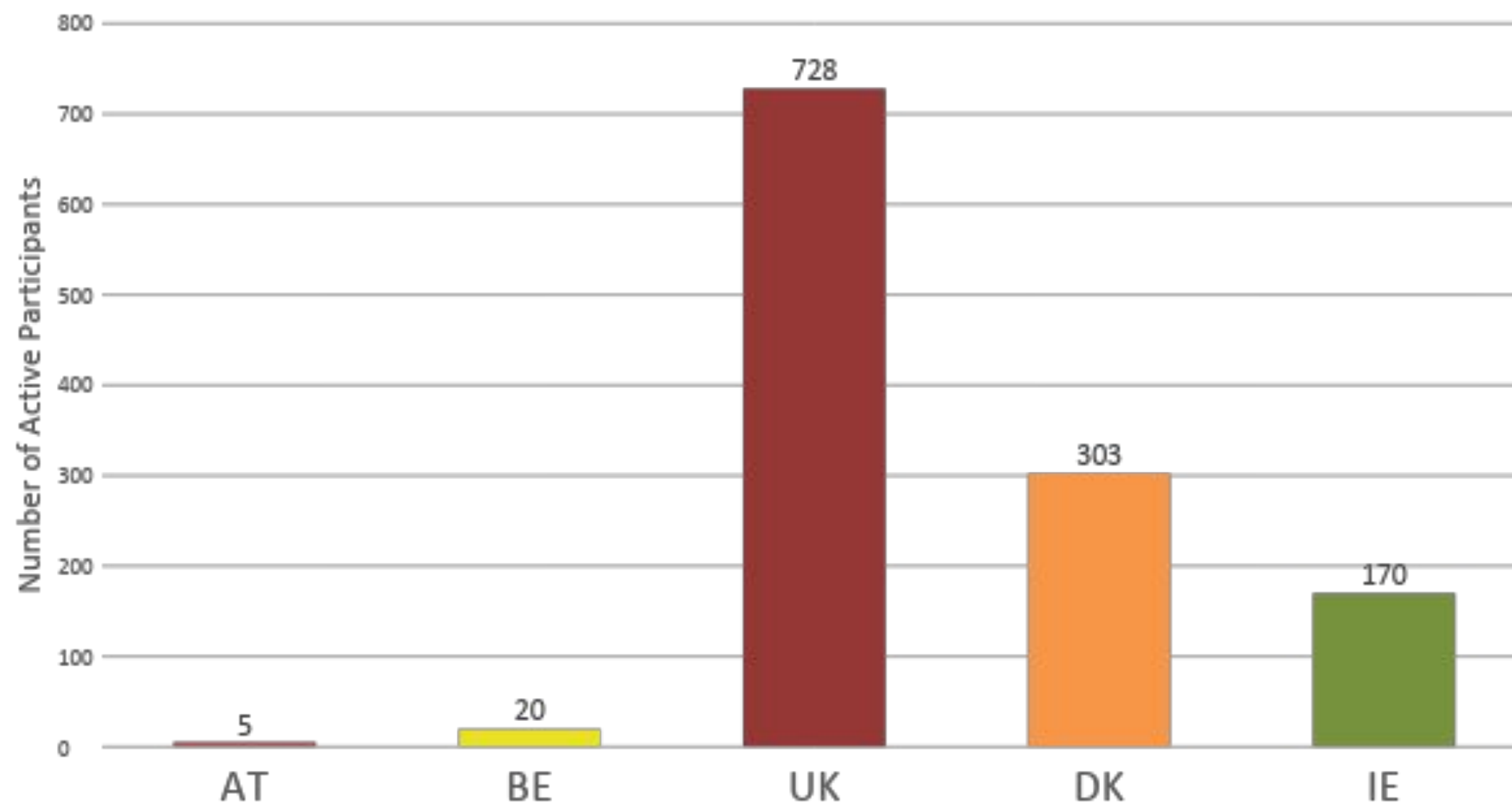
RFM Method Key Metrics	
Recency	Number of interval days between data collect date (6/15/2018) and the “last submission date”
Frequency	The variable “number of submissions”.
Monetary	The variable “total points”.

Active Participants Standards

- Recency performance better than the average level of their own country;
- Frequency higher than 1.5 times of the average level of their own country;
- Monetary over 300 points.

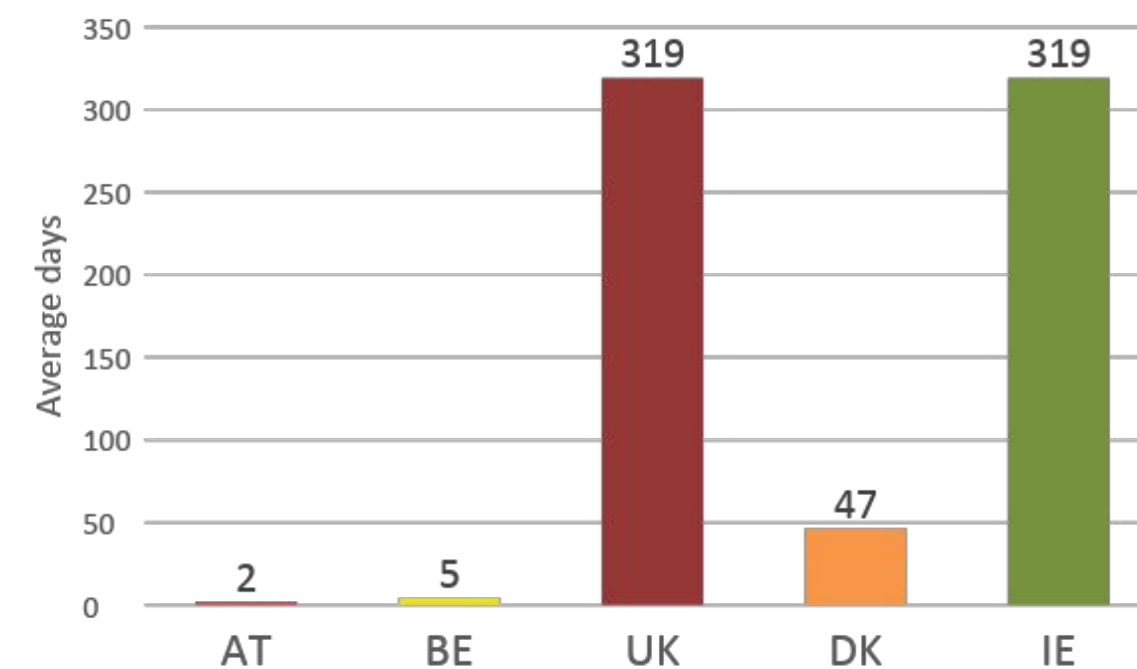
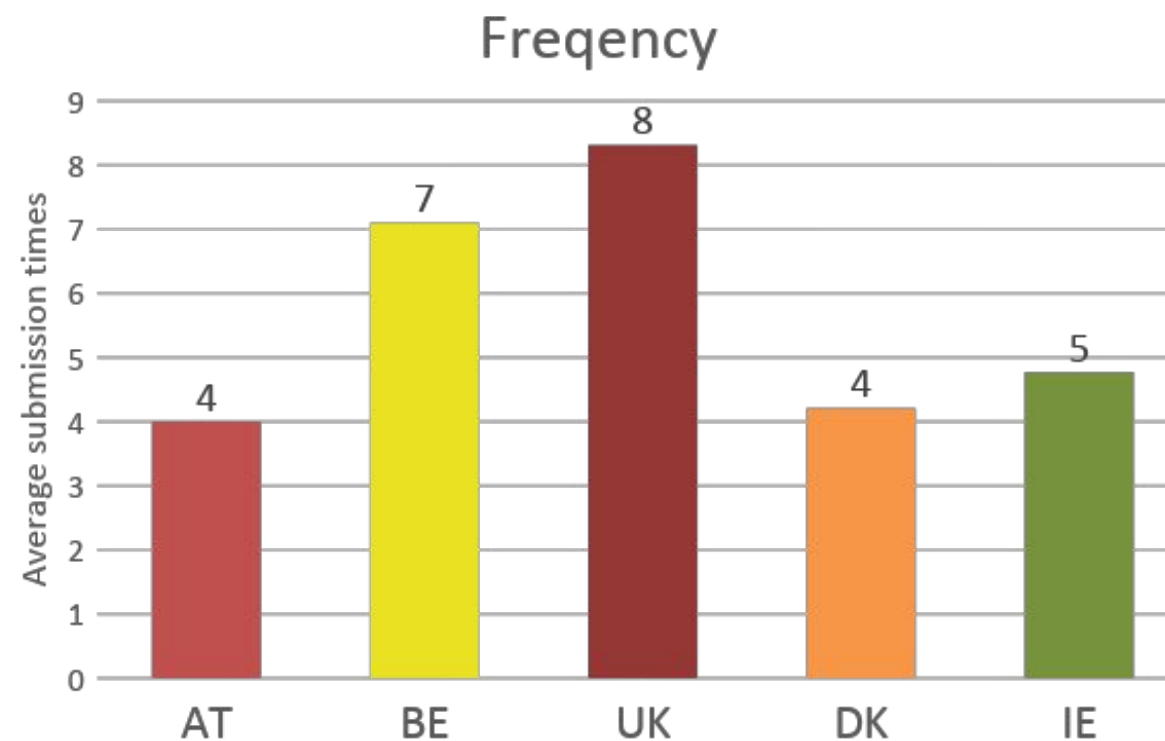
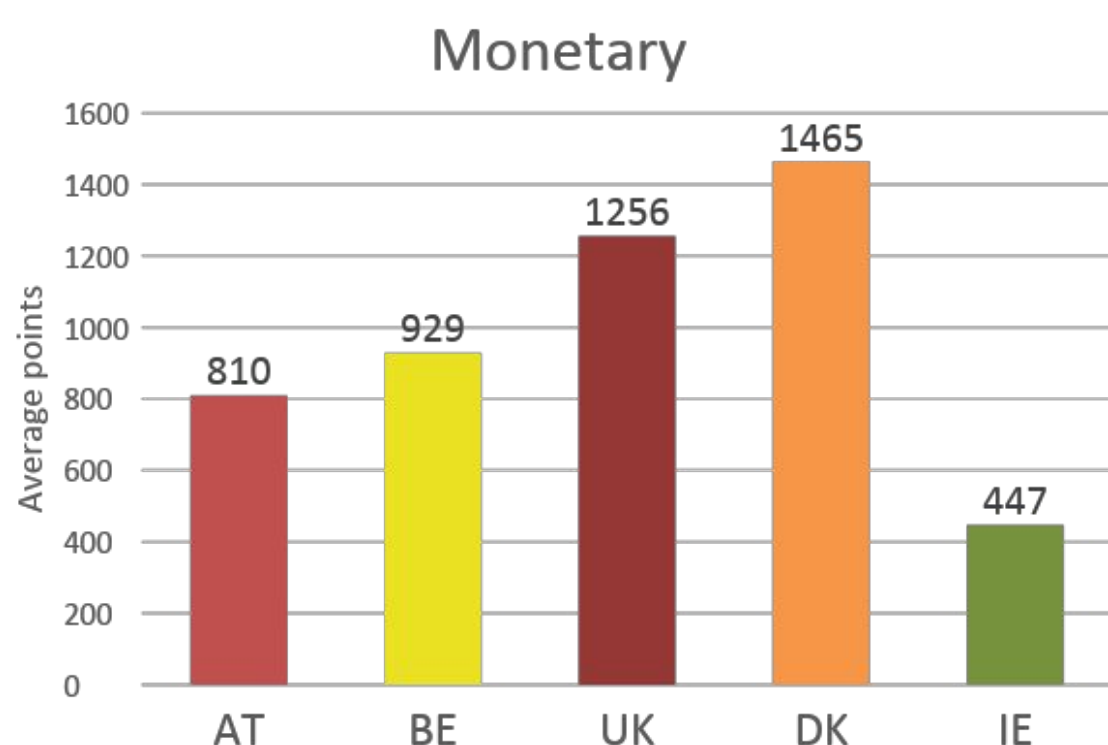


Number of “Active Participants” in Each Country



Country	Number of Active Participants
AT	5
BE	20
UK	728
DK	303
IE	170
Total	1226

RFM Performance of “Active Participants” in Each Country



Key findings:

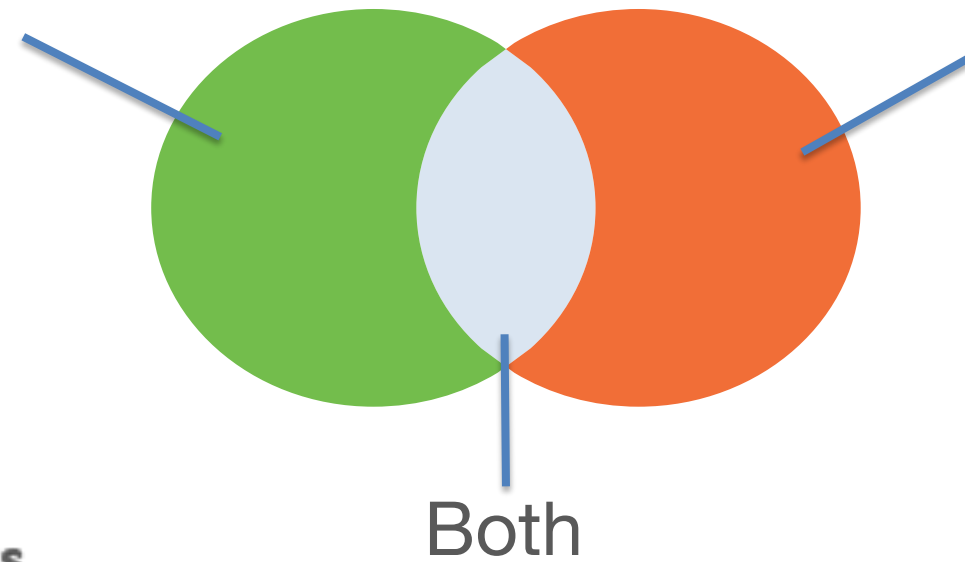
- Currently, BE seems to be more promising than AT.
- UK has the largest number of active participants and perform well in monetary and frequency.
- The active participants in Denmark have the highest average monetary but low frequency, meaning they are valuable and have much potential.



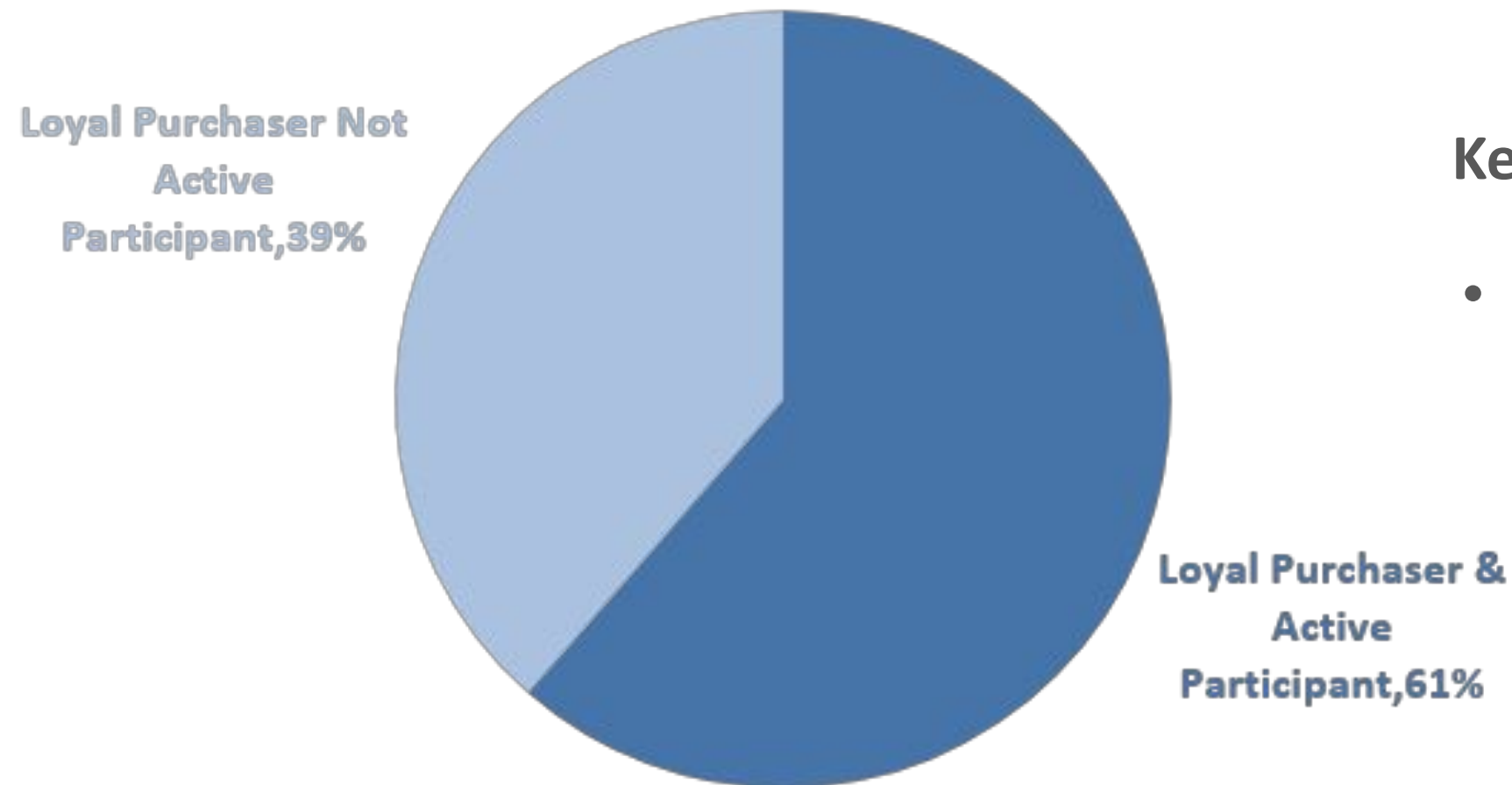
Hypothesis 2 Inspection

Active participants in VELUX Rewards Program

Loyal purchasers of VELUX



The composition of loyal Purchasers



Key Finding:

- The result of H2 test is 61.42%, meaning there are over half of VELUX loyal purchasers are also active participants in VELUX Rewards Program.

Thus, Hypothesis 2 is accepted.



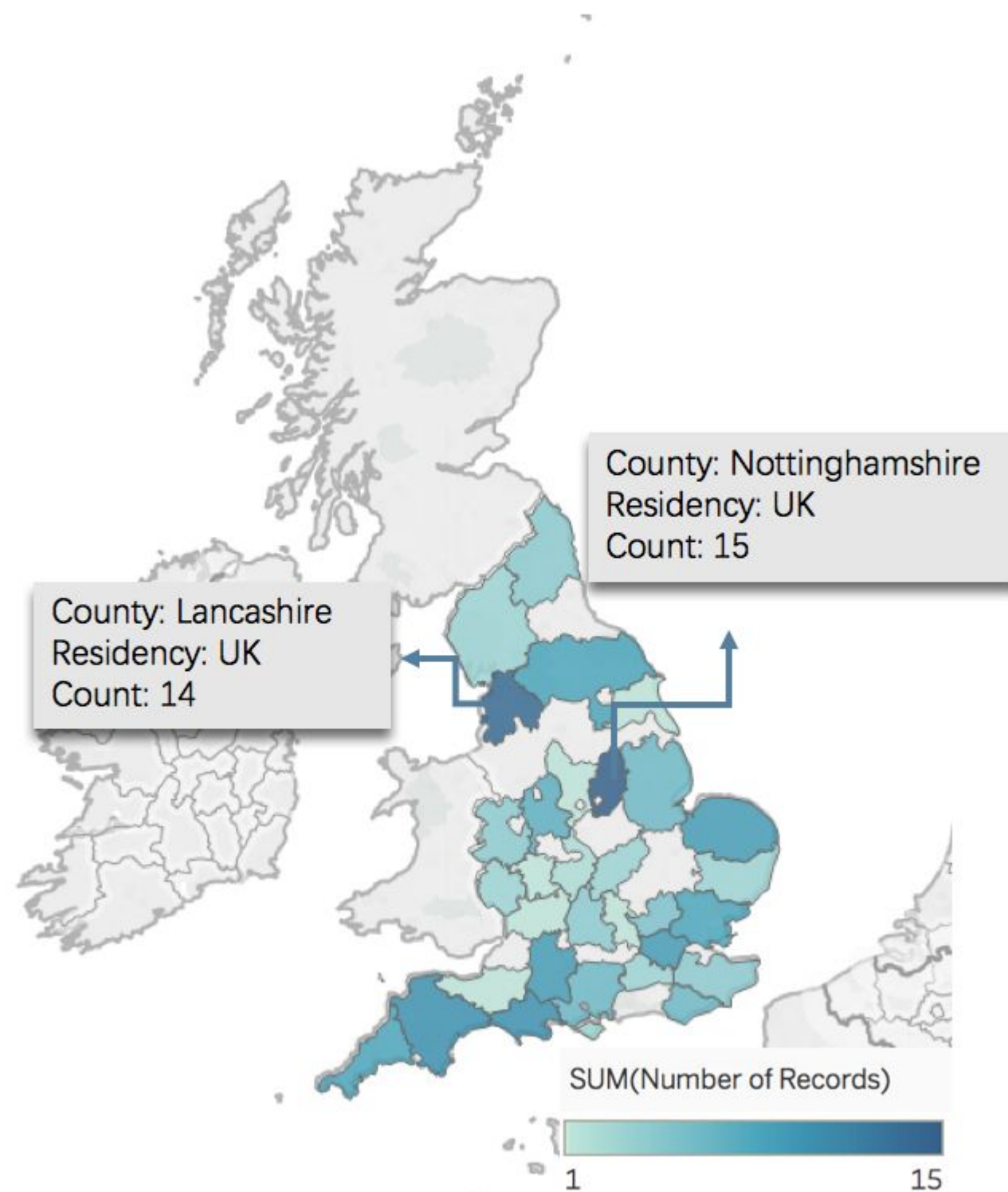


How to Find “Passive” Loyal Purchasers?

“Passive” Loyal Purchaser Distribution in UK

“Passive” Loyal Purchasers (VELUX Loyal Purchasers But Not Active Participants)

Item	Count
UK	214
IE	3
DK	0
BE	1
AT	0
CH	0
Total	218



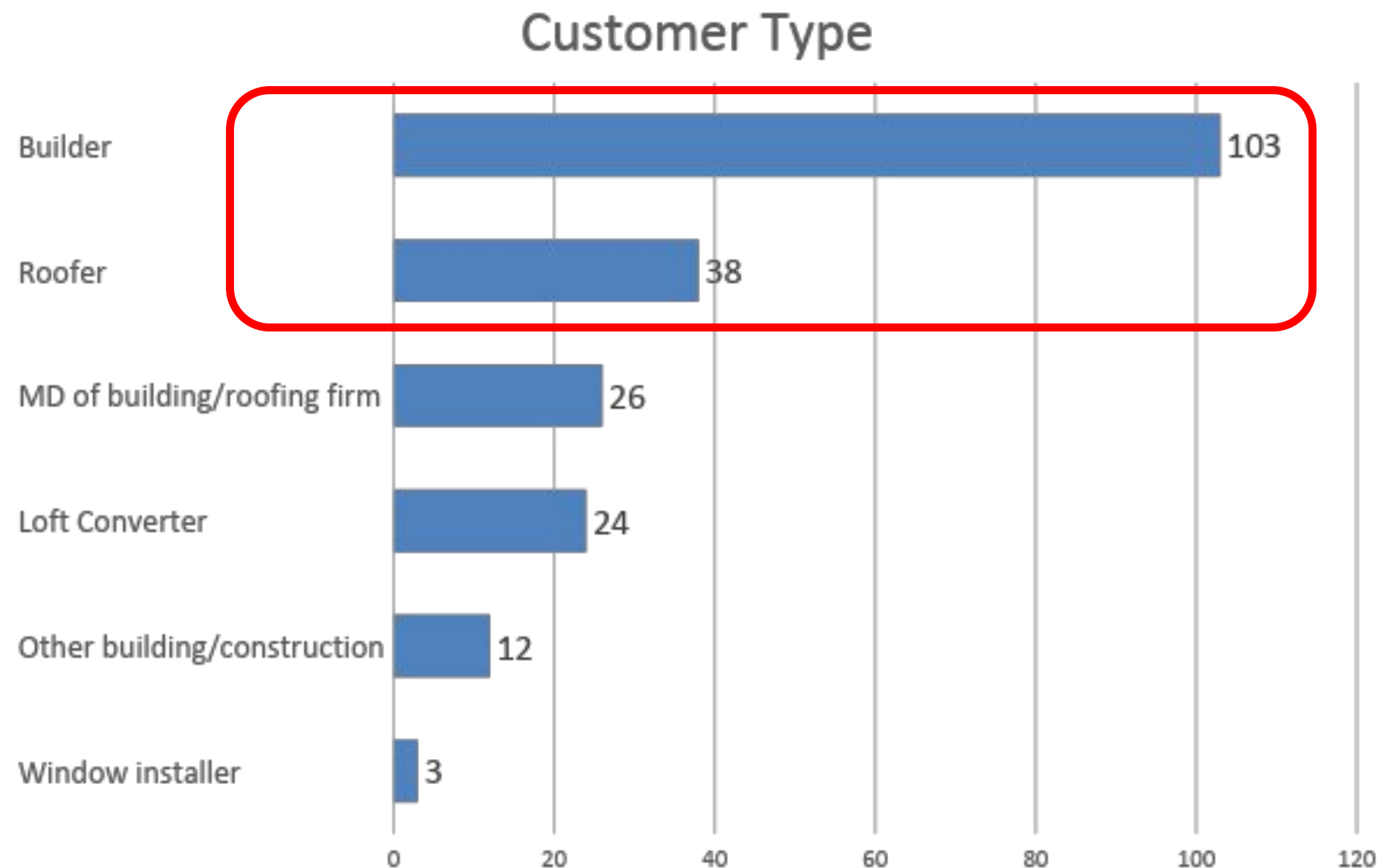
Key Findings:

- 218 loyal purchasers of VELUX are not highly participating in the Rewards Program.
- Most of these “passive” loyal purchasers are located in the west side of UK.



Key findings of the “Passive” Loyal VELUX Purchasers in UK

➤ Customer Type

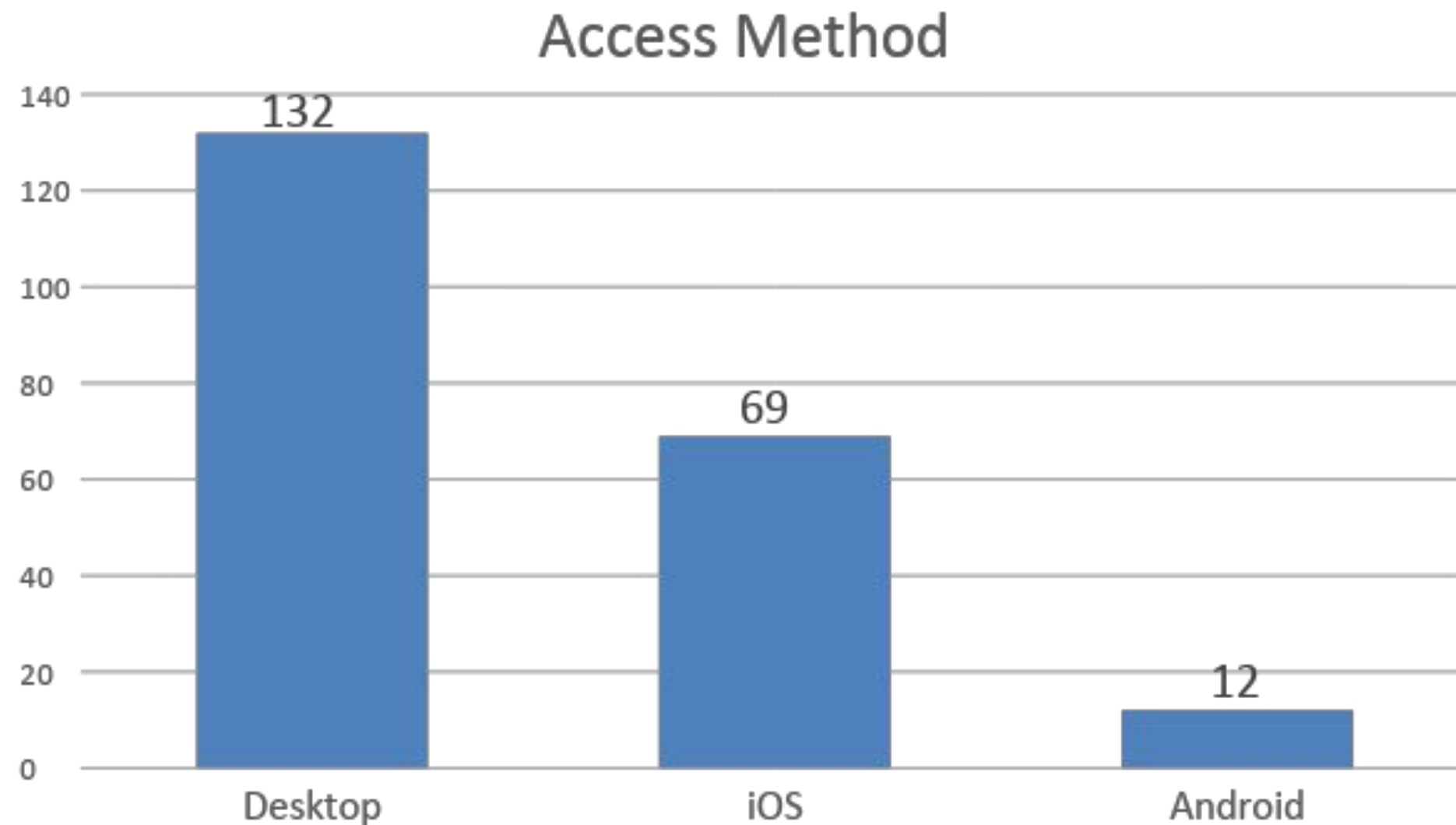


Key Finding:

According to the chart on the left, Builder and Roofer are two major types that could be motivated to have more engagement with the Rewards Program.

Key findings of the “Passive” Loyal VELUX Purchasers in UK

➤ Access Method



Key Finding:

Desktop is the main access method for many of the Velux “passive” loyal purchasers.



H3: Active participants' NPS should be higher than the rest of participants in each country.

Methodology: Net Promoter Score (NPS) Analysis



Definition & Calculate Formula

Net Promoter Score (**NPS**) is a management tool that can be used to gauge the loyalty of a firm's customer relationships. It serves as an alternative to traditional customer satisfaction research and claims to be correlated with revenue growth.

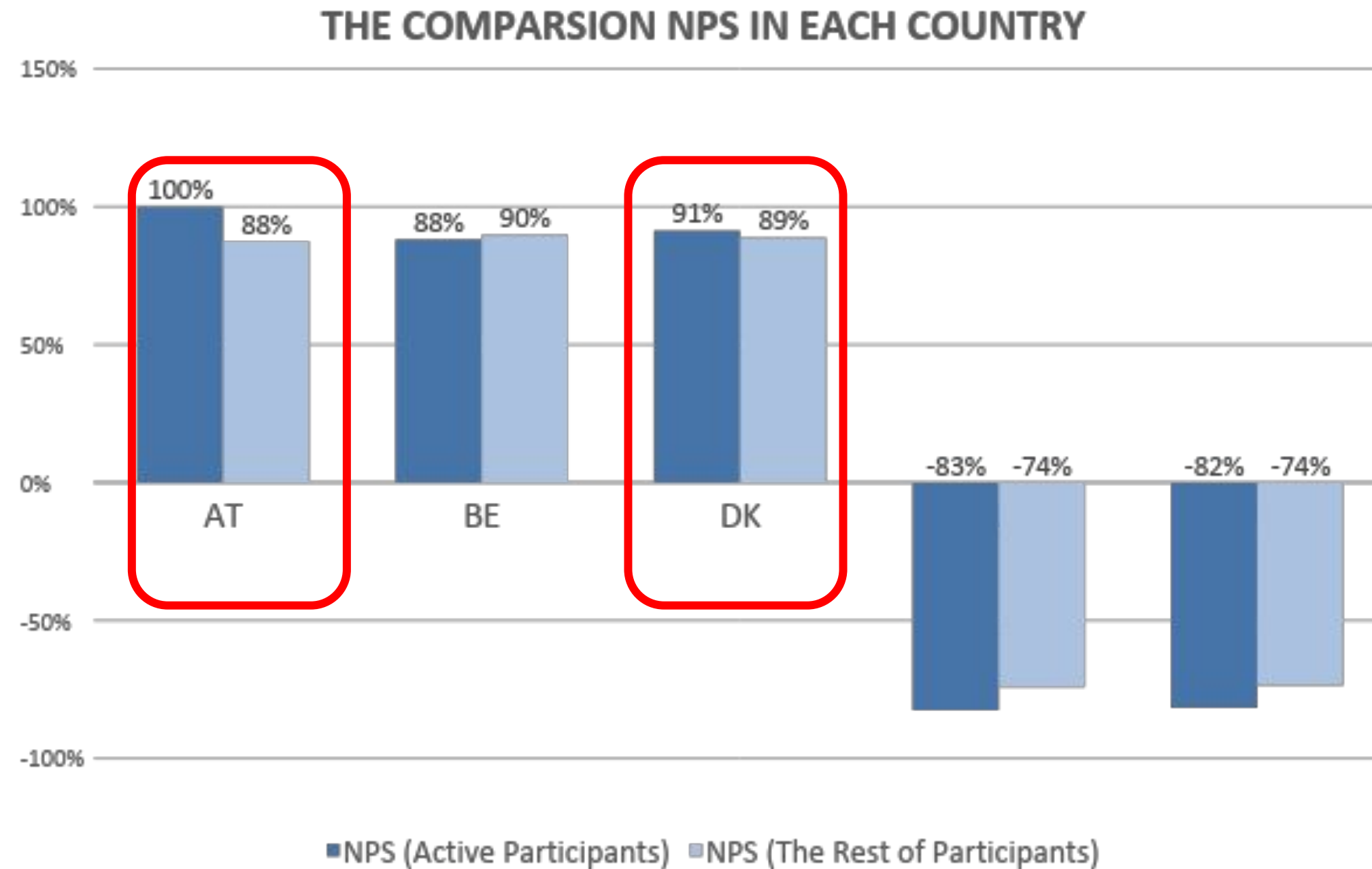
Final question: How likely are you to recommend Velux products to your friends?



$$\text{NPS} = \text{Promoters\%} - \text{Detractors\%}$$



How 5 Countries Perform?



Key Findings:

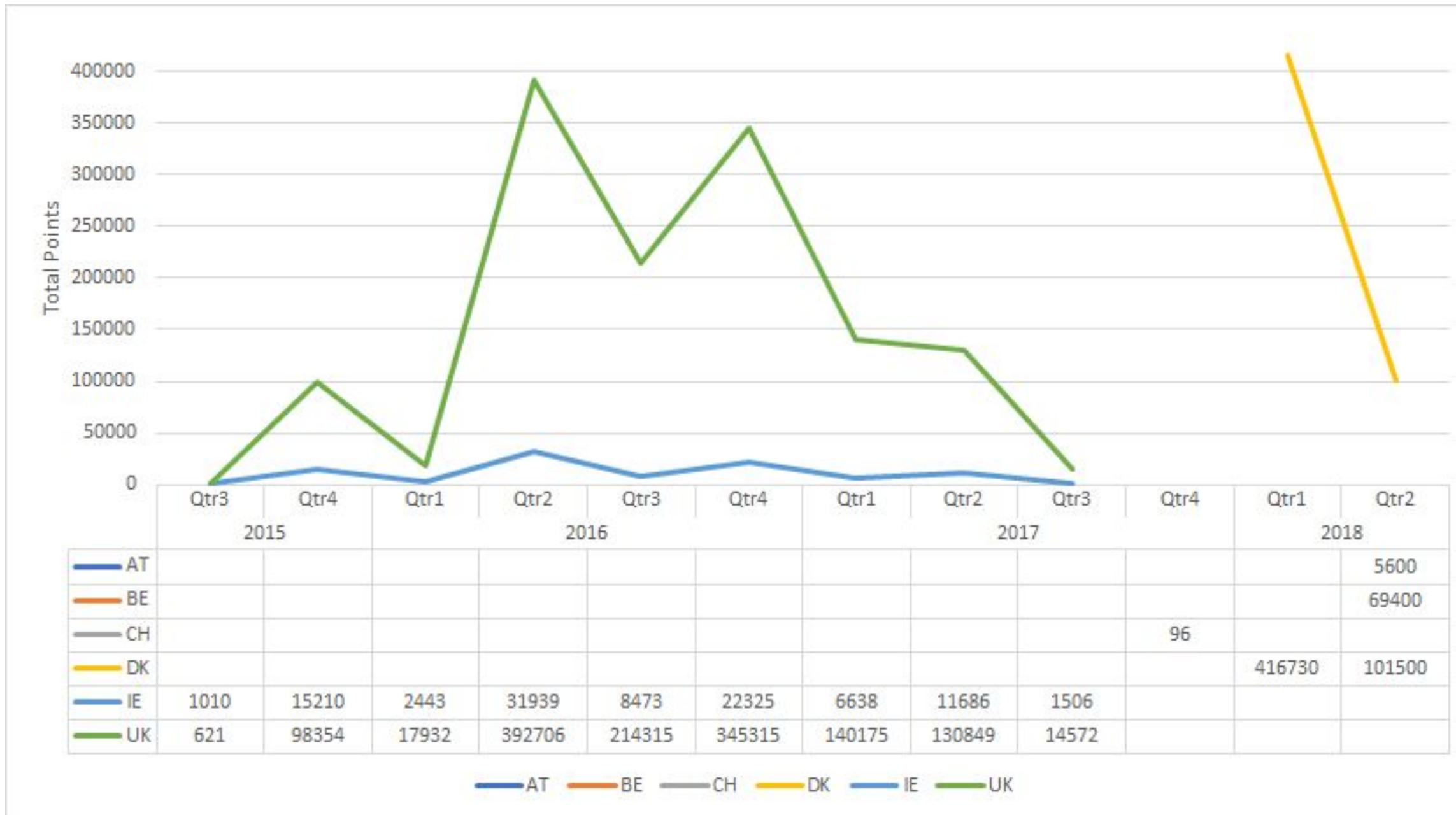
- Only AT and DK satisfy the hypothesis 3.
- IE and UK have the negative NPS because they have 0 promoters but high number of detractors.

Thus, H3 is rejected.

- H4: a. VELUX Rewards Program performance in Austria and Denmark follow pattern similar to Rewards Program previously launched in UK and IE.
- b. VELUX Rewards Program past performance will provide indications of future performance.

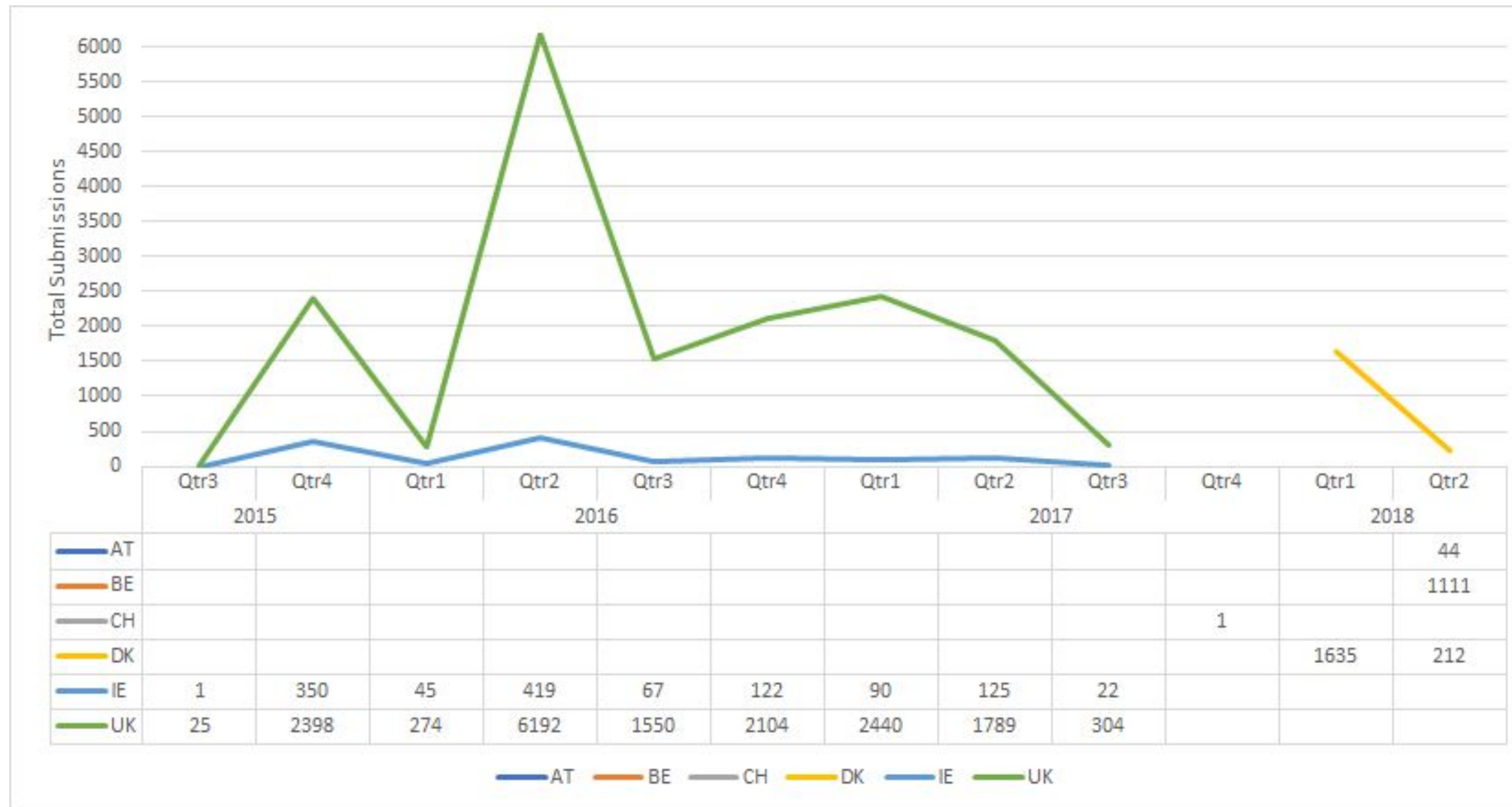
Methodology: Auto Regressive Integrated Moving Average (ARIMA) model

VELUX Rewards Program Performance



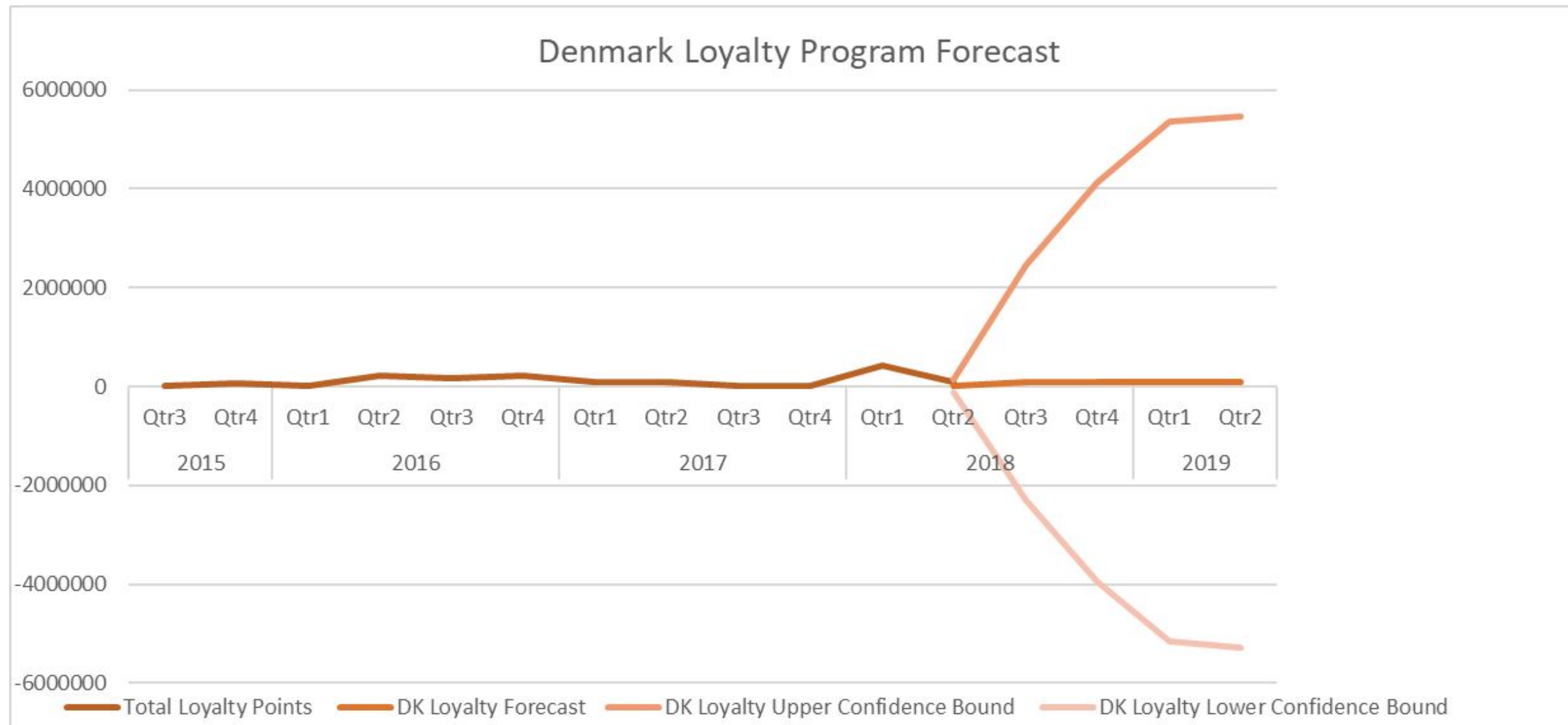
- “Total Points” aggregated by country on a quarterly basis from Q3 of 2015 to Q2 of 2018
- UK followed by Ireland had the most robust performance trends for 3 consecutive years
 - Indicates potential to predict future Rewards Program performance trends utilizing UK and IE market data
- Given Danish market generated measurable performance figures in Q1 & Q2 of 2018, UK & IE Rewards Program performance trends will be used to forecast Danish Rewards Program performance.
- Austrian market will also be forecasted off early reads in Q2 of 2018

VELUX Rewards Program Participation



- “Total Submissions” aggregated by country on a quarterly basis from Q3 of 2015 to Q2 of 2018
- Trends in data aligned with performance trends:
 - Data showed significant “spike” in the UK market in both performance and participation during Q2 of 2016 (IE market also saw a small spike during this time period).
 - Early reads show a sharp decline in both Rewards Program performance & participation in the DK market

VELUX Rewards Program Predictive Analysis



- “Total Points” for both UK & Irish markets were aggregated (all 3 years) and a moving average was calculated (incorporating Danish/Austrian 2018 data)
- An Auto Regressive Integrated Moving Average model was used for time series forecasting for both DK & AT markets
- Both markets were validated for a 95% confidence interval
- Rewards Program past performance will provide indications of future performance. **(H4b accepted)**
- Rewards Program performance in Denmark will follow a pattern similar to the ones previously launched in UK and Ireland. **(H4a accepted)**



VELUX Rewards Program Predictive Analysis



— Total Loyalty Points
— AT Loyalty Lower Confidence Bound
— AT Loyalty Forecast
— AT Loyalty Upper Confidence Bound

- Rewards Program performance in Austria (based on initial reads) will not follow a pattern similar to the ones previously launched in UK and Ireland. **(H4a rejected)**
- Implications:
 - Invest in nurturing Austrian market to drive loyalty engagement into the positive confidence interval
 - Analyze the variation rationale between UK and Iris/Danish performance/participation trends
 - Apply successful CRM strategies utilized in the UK VELUX Rewards Program across European markets
 - Possibly divest away from unsuccessful markets if negative engagement trends persist.





Conclusions

H1: Membership registration of VELUX Rewards Program is highest in Q2.



Accepted, but DK is an exception

H2: Over 60% of VELUX loyal purchasers (5+ purchases) are also active participants in VELUX Rewards Program.



Accepted

H3: Active participants' NPS is higher than the rest of participants' in each country.



Rejected, only AT and DK satisfy H3

H4: a. VELUX Rewards Program performance in Austria and Denmark follow a pattern similar to the Rewards Program previously launched in UK and IE.



b. The program past performance will provide indications of future performance.

Accepted



Recommendations – Seasonality Analysis

For UK and IE

- In Q2, set more “In branch points of sale”;

For DK

- In Q1, allocate more budget on sending VELUX Email or Newsletter to customers.

For AT, BE and DK

- Implement campaigns like “Kontinuerligt” in Q1 and “White Painted” in Q2 to increase membership registrations.





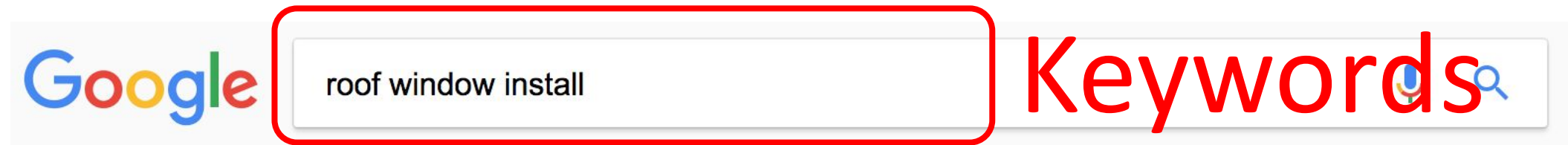
Recommendations – Customer Segmentation

For AT and DK

- Attract more new customers.
- Create more attractive website banner
- Optimize Google search ranking

For UK

- Optimize the website design.
- Design Rewards Program mobile app- send push about campaign to users.
- Focus on Builder and Roofer, and introduce them the Rewards Program in detail and collect their advice to improve the program.



Roof skylight | Skylights Made to Order in NYC | aqelsheetmetal.com

广告 www.aqelsheetmetal.com/ ▼

Standard & custom skylights fabricated & installed. Call for free quote today. Free quote available.
Highlights: Custom Manufacturing Commercial Skylights, Developing Beautiful Patina, Free Consultation Available.

Chimneys Available · Spiral Ducts · Q-Decking Sheets · Architectural Grilles · Architectural Louvers

How to install a roof window - Loft Shop

<https://www.loftshop.co.uk/about/Lofty-Ideas/How-to-install-a-roof-window> ▼ 翻译此页

Lightly tap the dowel into the hole using a rubber mallet, or hammer if you don't have one. Keep the brackets square to the frame and hammer in the spiked end. 10. Lift the **roof window** frame into the **roof** opening and locate so that the metal pins sit on top of the top and bottom battens.

VELUX Skylight Installation | Instructions and Videos - VELUX Skylights

<https://www.veluxusa.com/help/installation-help/skylight-installation> ▼ 翻译此页

The resources in this section are intended to help you in **installing** your **VELUX skylights, roof windows,** sun tunnels and skylight blinds.

#6



Recommendations – NPS Analysis & Predictive Analysis

For BE, IE and UK

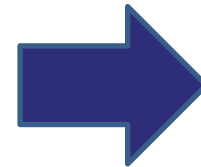
- Provide superior customer service to their Rewards Program customers.
- Implement gold membership service: faster shipment, premium supply chain, advanced notice of new products- Email Marketing
- Apply AI technology- IBM Watson

Contact Us

For any enquiries about the VELUX promotion, please email promotion@velux.co.uk **Only email contact**



VELUX Rewards Program Website



Watson /



Assistant : Watson Assistant

Q

:

How to use VELUX points

#how_to_use_rewards

@redeem:velux

A

:

When you reach to 1000 points in your rewards account, you have the chance to redeem one free roof window installation.

Example of AI Chat Box





Recommendations – NPS Analysis & Predictive Analysis

For IE and UK

- Conduct customer satisfaction survey.
- To figure out why there are 0 promoter (recommend score: 9-10) in these two countries.





Thank You !
Q & A

