

A decorative graphic consisting of three concentric white circles centered on the slide. On the left and right sides of these circles, there are two sets of white arcs, each set consisting of two concentric arcs, creating a sense of depth or a 3D effect.

Marketing Data Analysis

Amazon Review Analysis

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Reviews

Customer reviews

★★★★☆ 4 out of 5 ✓

5,176 customer ratings

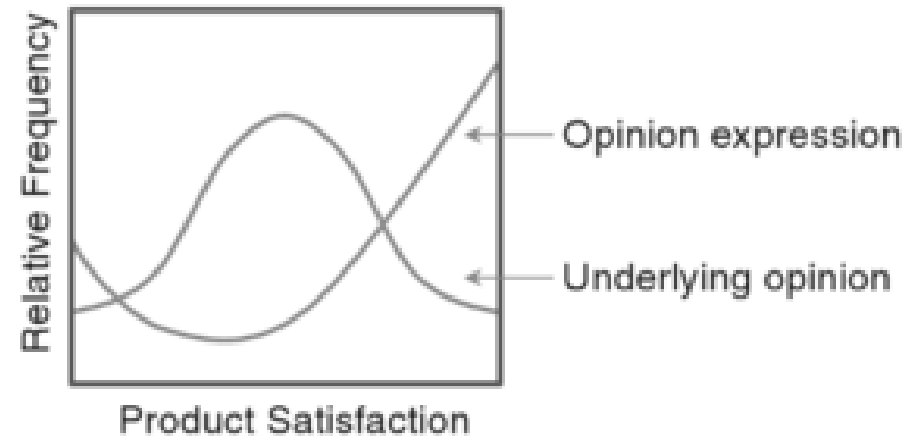
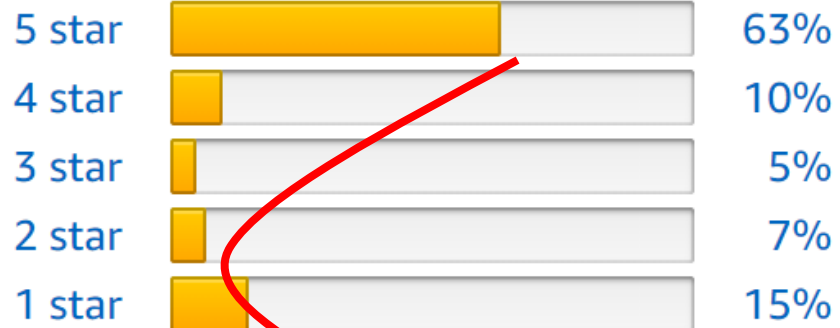


Figure 3.1. Underlying opinion versus opinion expression

Data Set

	A	B	C	D
1		X1	X2	
2	1	This thing blazes. We upgraded from an Archer C-7 (which itself was quite good) to	October 26, 2019	
3	2	I rated the signal lower because we had trouble with longer ranges. I think that	October 26, 2019	
4	3	Plug and play and synchs seamlessly with wifi extender	October 26, 2019	
5	4	Router set up was okay and worked well for about 10 minutes when the WIFI	October 25, 2019	
6	5	My internet was randomly shutting down. After weeks of calling my ISP and them	October 25, 2019	
7	6	Good coverage and an excellent price. Though this is not the latest technology	October 25, 2019	
8	7	Paid for itself in three months because the older cheaper wifi router I had kept	October 25, 2019	
9	8	Works well and easy to setup	October 24, 2019	
10	9	I have about 20 smart devices, including several TVs and a computer. This router is	October 24, 2019	
11	10	I purchased the A-20 to replace the Wifi radio broadcast from my Verizon FiOS	October 24, 2019	

2991	2990	using, no proplems	June 6, 2016
2992	2991	Replaced a Netgear with this router. Install was easy and all my devices found it	June 6, 2016
2993	2992	I've had no issues and am very pleased with this purchase. Much greater range	June 6, 2016
2994	2993	product arrive on time, had to upgrade old equipment, fixed my network issues.	June 6, 2016
2995	2994	Great router and very easy to set up . Flexible configuration. Mobile app works	June 5, 2016
2996	2995	Boosted our wifi speed vs the old tplink router we had. Worth the upgrade.	June 5, 2016
2997	2996	Worked well for me! Strong signal even outside my house!	June 5, 2016
2998	2997	I'm still trying to make it link! Finally decided to hire a computer expert...hopefully	June 4, 2016
2999	2998	Good range, 2 bands and guest network. You can turn wifi portion off with button	June 4, 2016
3000	2999	Replaced my old Linksys wifi router with this model - very easy to configure and	June 4, 2016
3001	3000	The router works fine Parental Controls get an F-. Basically unusable.	June 4, 2016

Frequency Table

router 2998	great 958	wifi 775	one 709	easy 681	signal 665	good 649	works 629	tplink 587	get 560
house 557	range 542	just 518	set 505	internet 500	now 461	well 435	can 435	devices 428	time 425
speed 425	product 418	ghz 409	will 404	use 398	old 395	setup 386	wireless 381	even 348	work 343
connection 338	like 332	better 323	months 323	network 314	support 313	back 310	mbps 307	ive 306	working 305
also 301	bought 294	home 291	issues 283	far 280	worked 278	still 274	routers 269	much 269	modem 268
new 261	firmware 261	two 248	using 247	fast 243	year 236	service 236	years 236	got 235	really 225
unit 223	speeds 222	problem 221	buy 220	first 218	device 216	netgear 214	never 212	connected 205	since 204
need 203	price 201	dont 199	connect 196	getting 186	issue 185	app 183	problems 181	link 176	best 175

Removed Words

```
7  
8 docs <- tm_map(docs, removeWords, c("router", "one", "tplink",  
"just", "'now", "can", "even", "ive", "also", "bought",  
"routers", "two", "got", "since", "dont"))  
9 for (i in 1:n desc) docs[[i]] <- gsub("'s", "", docs[[i]])
```

Selected Words

great	wifi	easy	signal	good	works	get	house	range	set
958	775	681	665	649	629	560	557	542	505
internet	now	well	devices	time	speed	product	ghz	will	use
500	461	435	428	425	425	418	409	404	398
old	setup	wireless	work	connection	like	better	months	network	support
395	386	381	343	338	332	323	323	314	313
back	mbps	working	home	issues	far	worked	still	much	modem
310	307	305	291	283	280	278	274	269	268
new	firmware	using	fast	year	service	years	really	unit	speeds
261	261	247	243	236	236	236	225	223	222
problem	buy	first	device	netgear	never	connected	need	price	connect
221	220	218	216	214	212	205	203	201	196
getting	issue	app	problems	link	best	coverage	recommend	customer	cable
186	185	183	181	176	175	174	171	169	169
every	band	thing	another	tech	amazon	day	power	access	archer
168	165	163	162	162	157	156	154	154	153



Product

TP-LINK AC1900 Smart Wireless Router
Modernly Designed Router

Price

\$99.99 (Moderate)

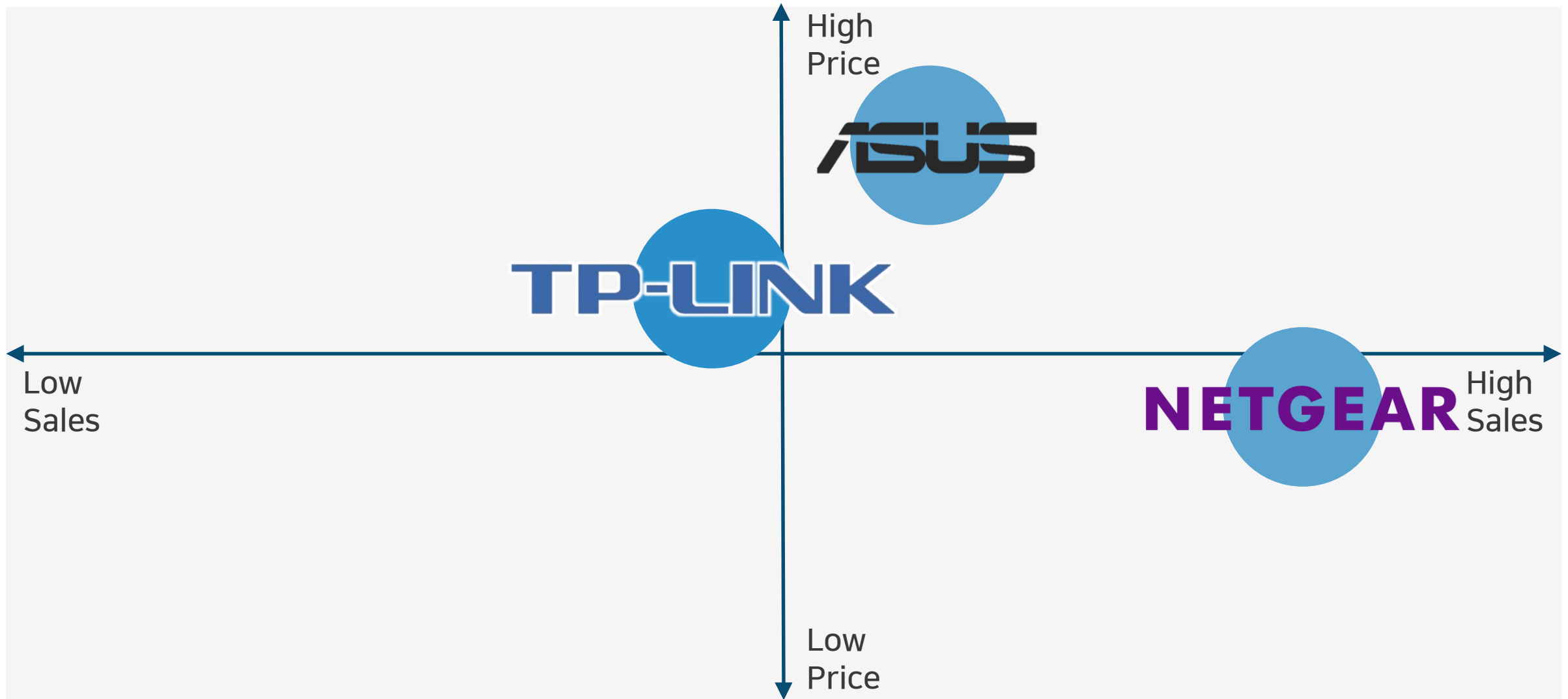
Place

Online Stores
Distribution Partners

Promotion

Discounting Price

Positioning Map



Competitor 1. NETGEAR



Product

NETGEAR Nighthawk Smart WiFi Router
Normal & Simple Routers

Price

\$62 (Relatively Cheap)

Place

Official Online Stores
Online & Offline Retailers

Promotion

Sales Promotion
Advertising
Direct Mail Campaigns

Word Cloud



Competitor 1. NETGEAR

Association

\$easy

set	setup	app	use	range	fast
0.32	0.30	0.25	0.19	0.13	0.10

\$app

easy	set	setup	use	like	using	old	great
0.25	0.24	0.21	0.17	0.16	0.14	0.13	0.12

\$support

tech	firmware	months	time	work	working	now	internet
0.25	0.24	0.21	0.17	0.16	0.14	0.13	0.12

\$issues

time	connection	firmware	home	devices	support	house
0.23	0.15	0.15	0.15	0.14	0.11	0.10

Competitor 2. ASUS



Product

Asus ROG Rapture GT-AX11000
Complex and High-end Routers

Price

\$379.78 (Expensive)

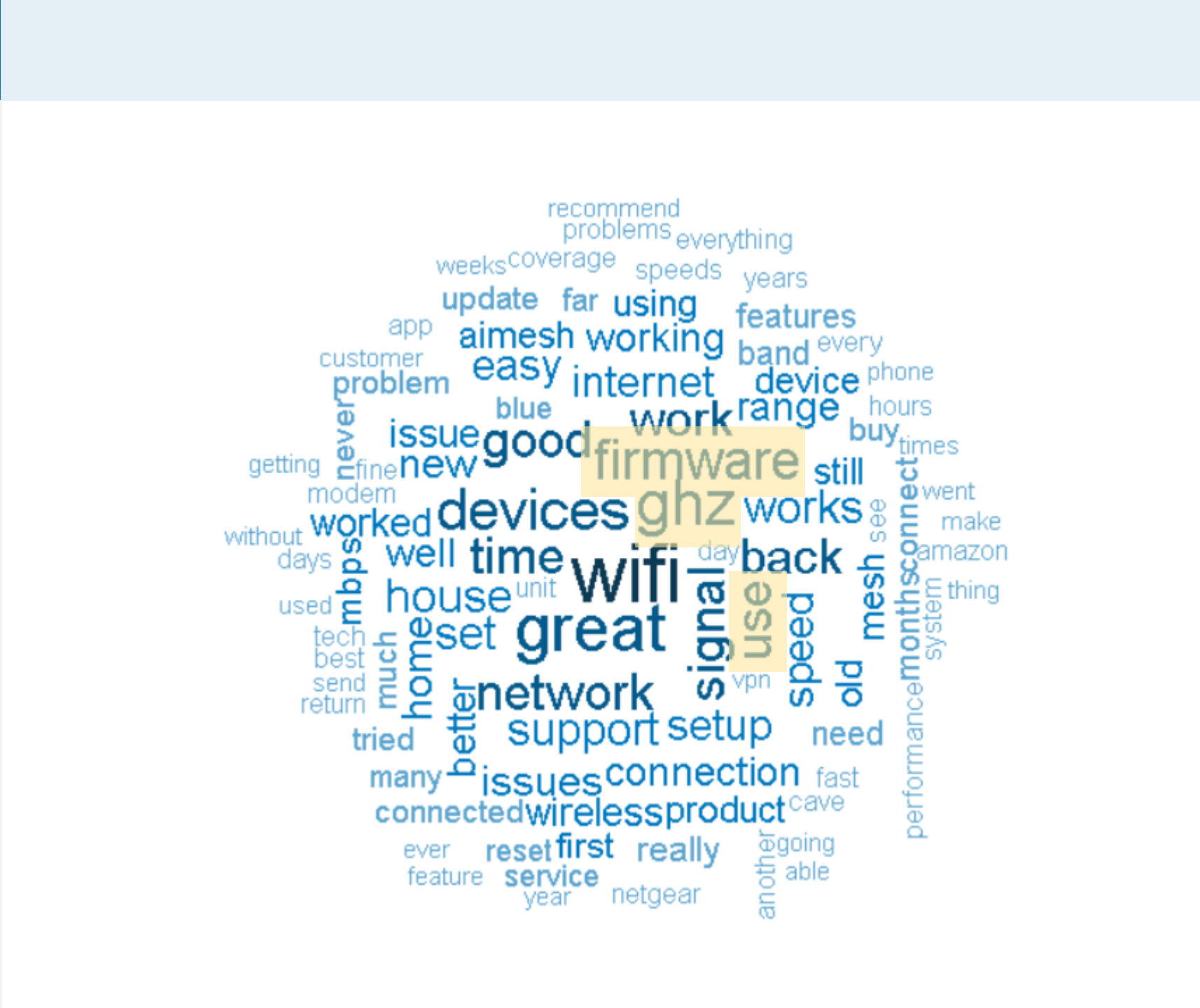
Place

Flagship Stores (Yongsan)
SSG, Amazon etc.

Promotion

Supporting Brand Image
(Not for Sales Promotion)
Campaigns for Premium Image

Word Cloud



Competitor 1. NETGEAR

Association

\$use

network	home	firmware	connection	easy	set	support	still
0.40	0.38	0.36	0.36	0.34	0.34	0.34	0.33
speed	better	devices	internet	wifi	setup	time	great
0.31	0.31	0.30	0.30	0.28	0.28	0.27	0.29

\$firmware

still	back	connection	first	set	time	use	new
0.41	0.40	0.38	0.38	0.36	0.36	0.36	0.35
issues	well	setup	support	wifi	better	working	network
0.35	0.32	0.32	0.30	0.28	0.28	0.27	0.26

Association

\$speed

set	connection	network	home	use	better	wifi
0.38	0.38	0.37	0.36	0.31	0.30	0.29
house	still	internet	devices	easy	well	new
0.28	0.28	0.27	0.25	0.25	0.25	0.23
support	firmware	signal	setup	issues	ghz	
0.22	0.22	0.21	0.21	0.21	0.20	

Comparison

NETGEAR



Pro

Highly Evaluated App

Con

Connection Issues

TP-LINK



Pro

Overall Features

Con

Unfriendly Customer Service

ASUS



Pro

High End Quality of Connection

Con

Firmware Issues

#1.

Further Analysis Based on Ratings of Reviews

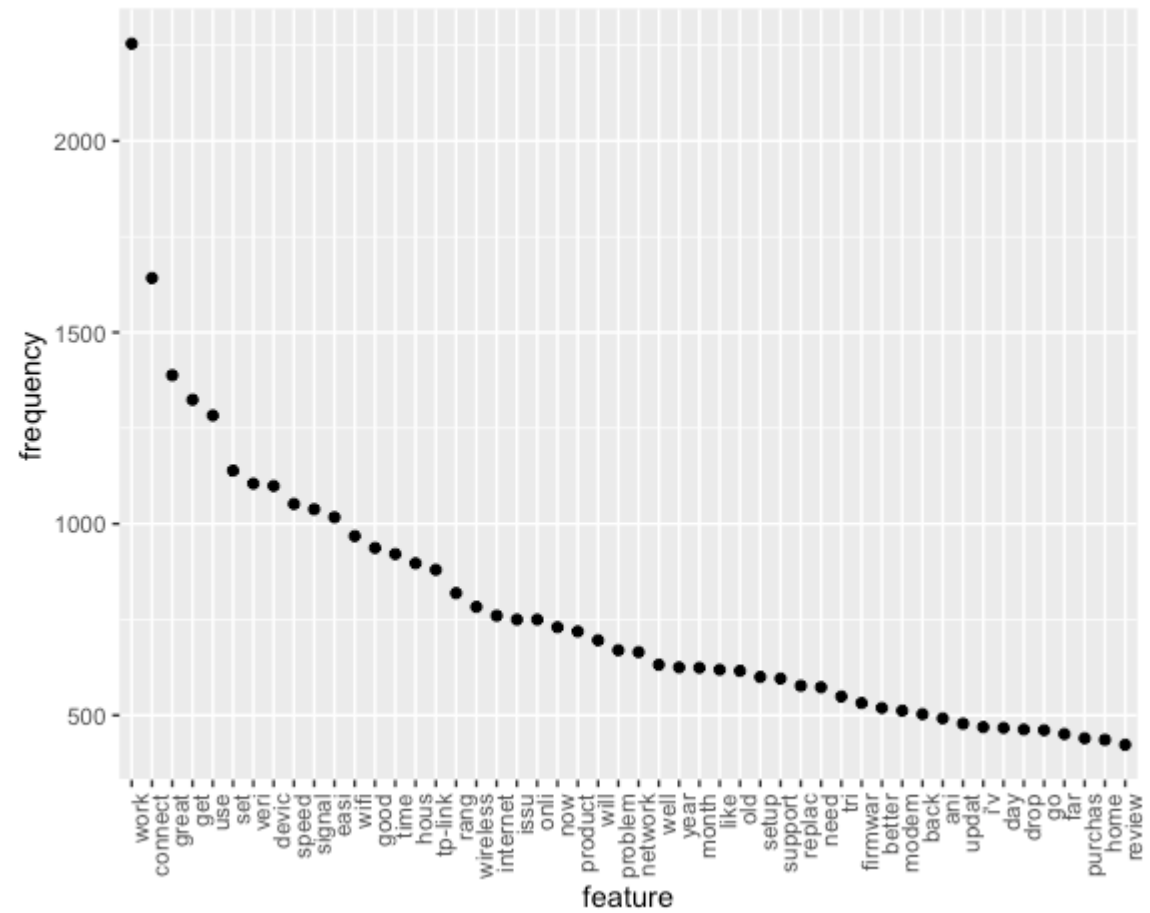
#2.

Focus on Sentiment

#3.

Review Classification

Frequency Plot All Reviews



Word Cloud

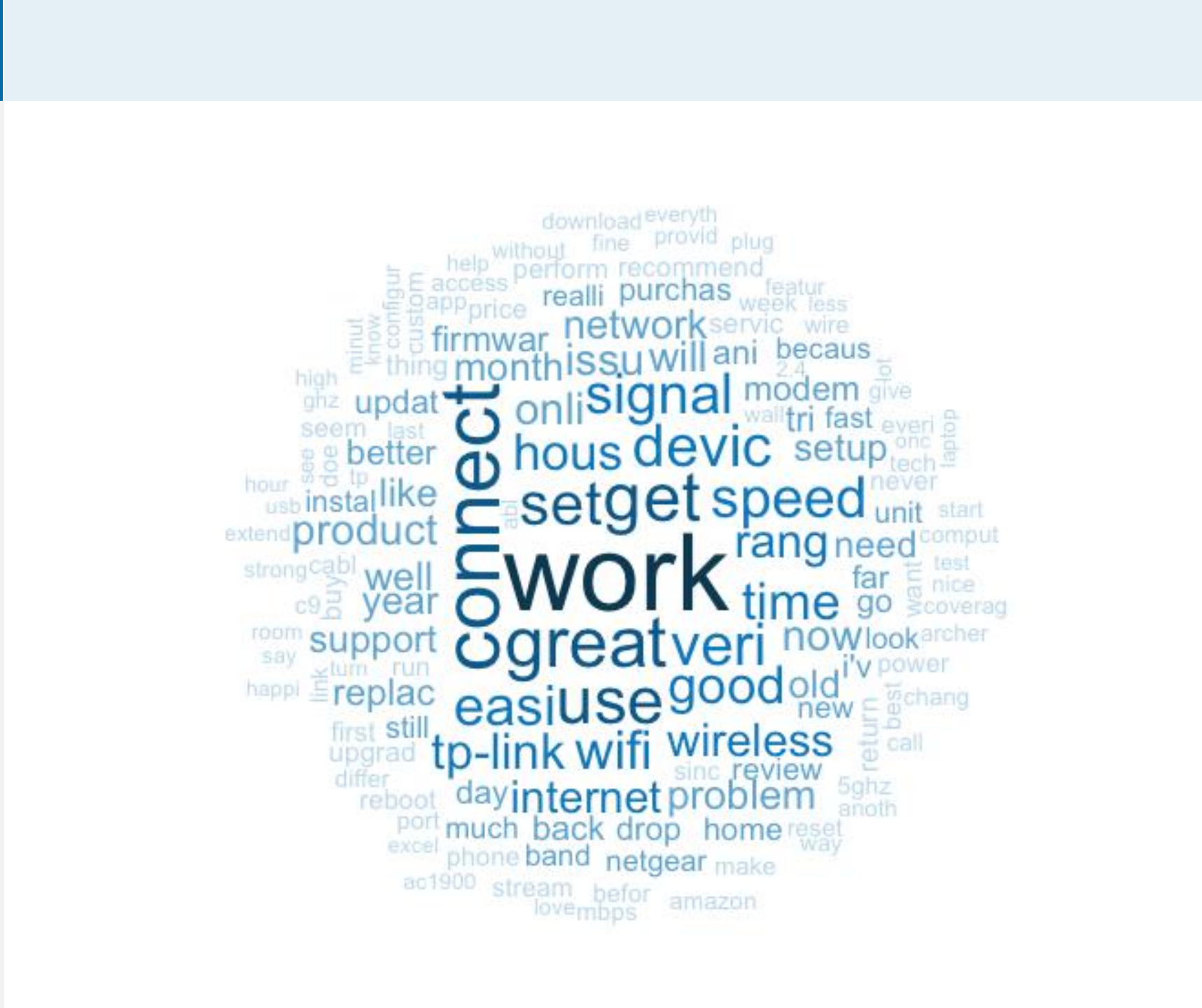
All Reviews

min count=200

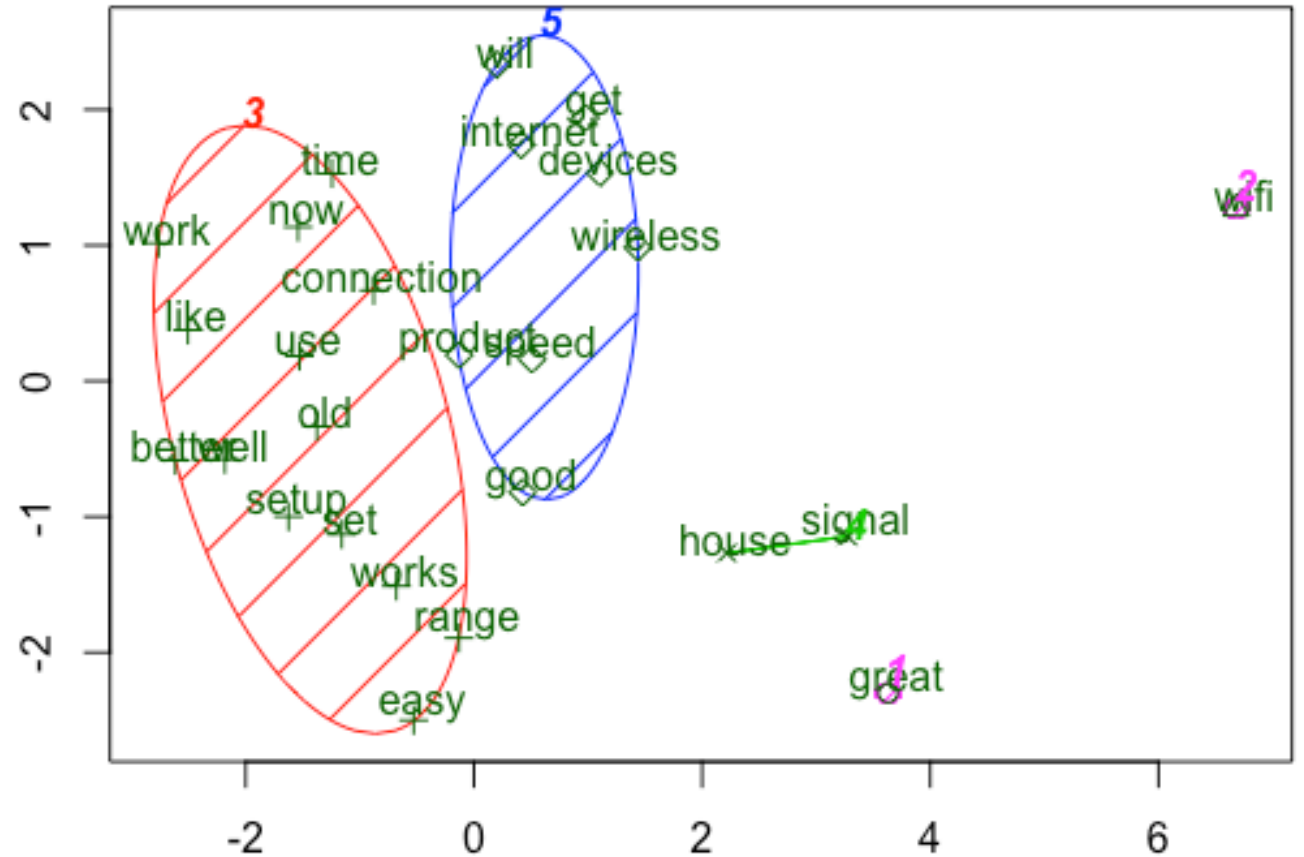
Word Cloud

All Reviews

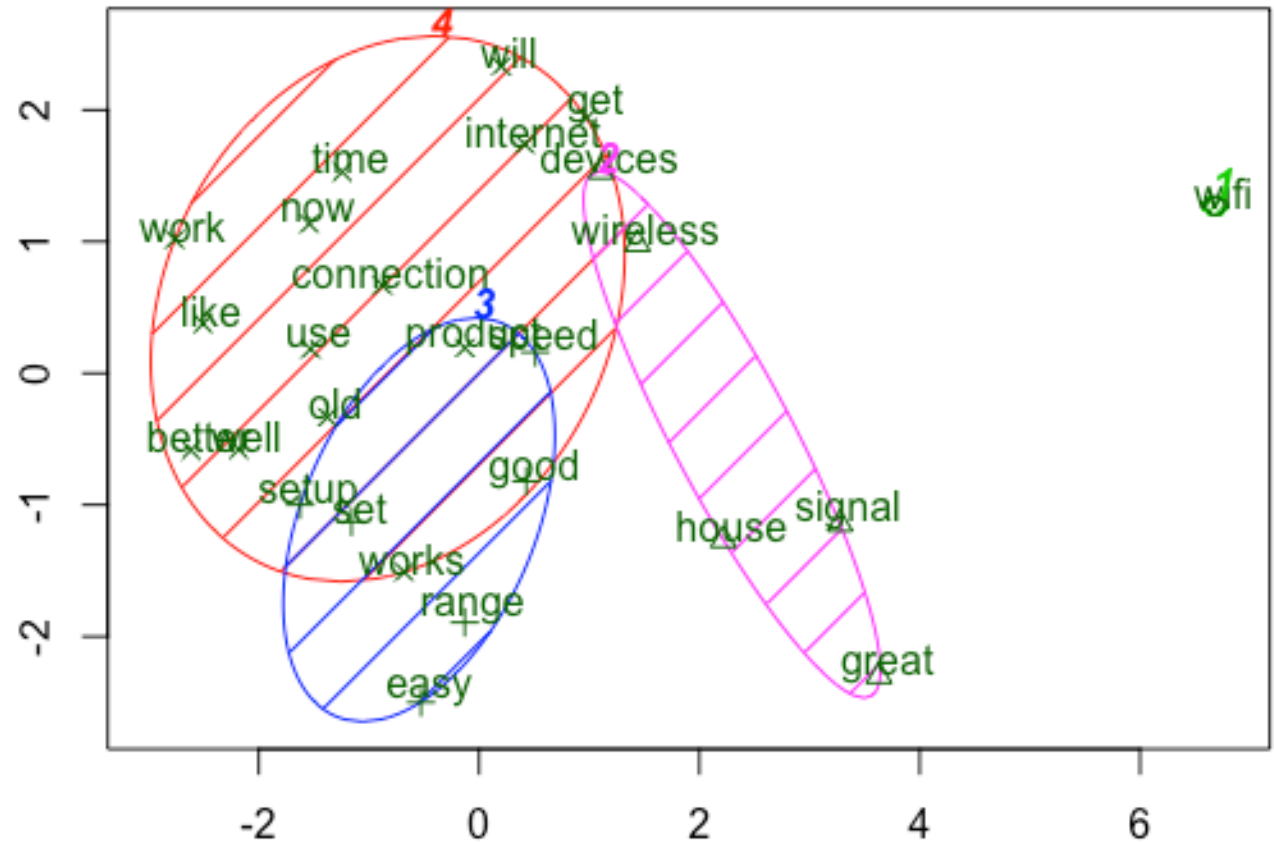
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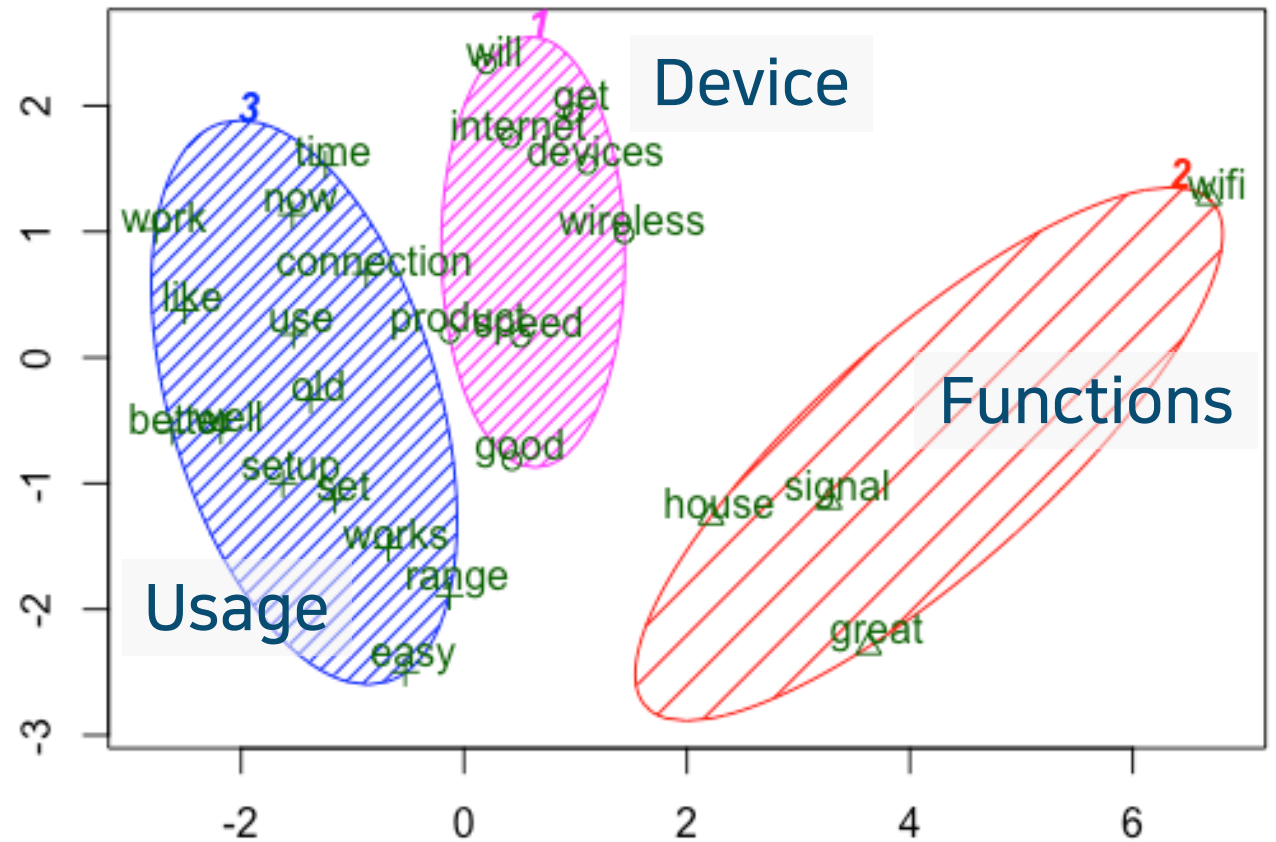
K-means Clustering All Reviews (n=5)



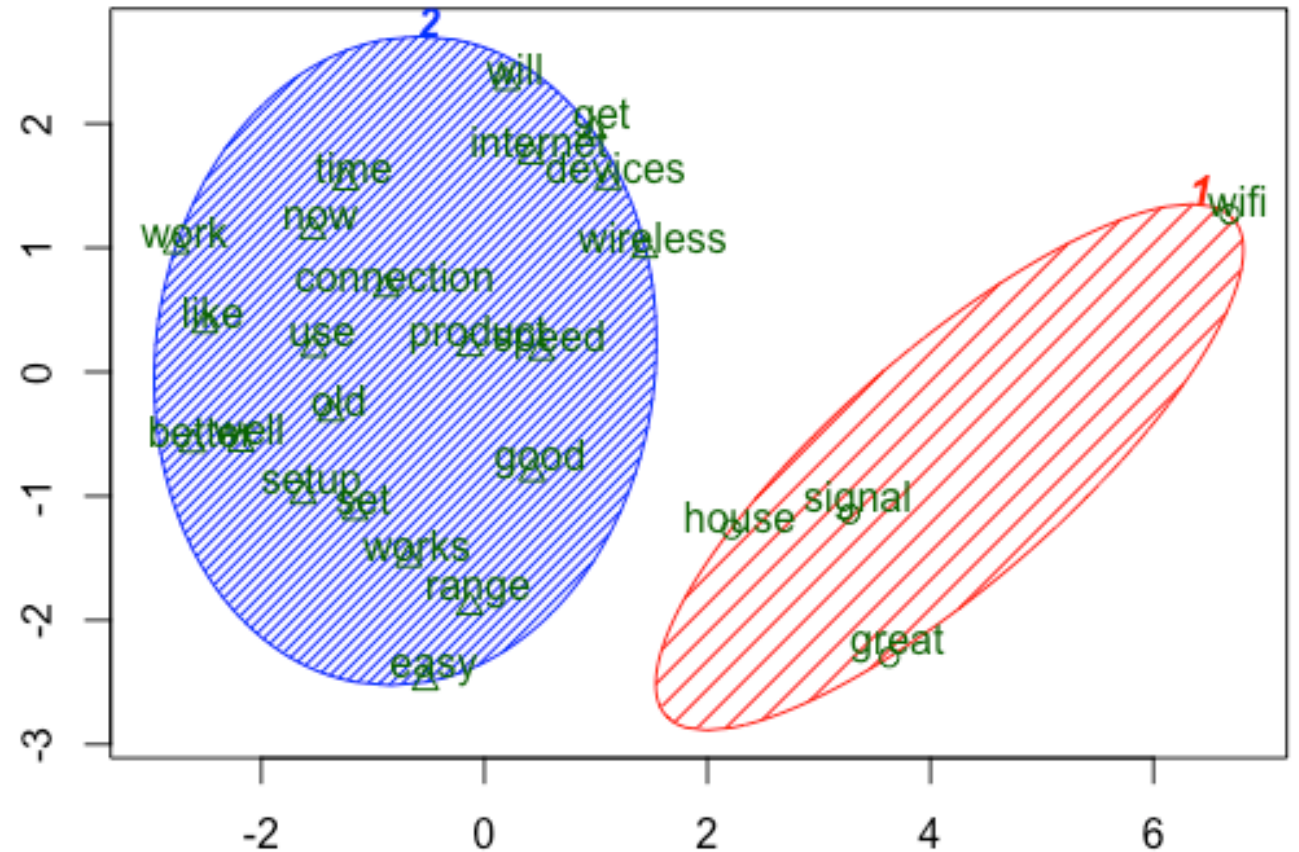
K-means Clustering All Reviews (n=4)



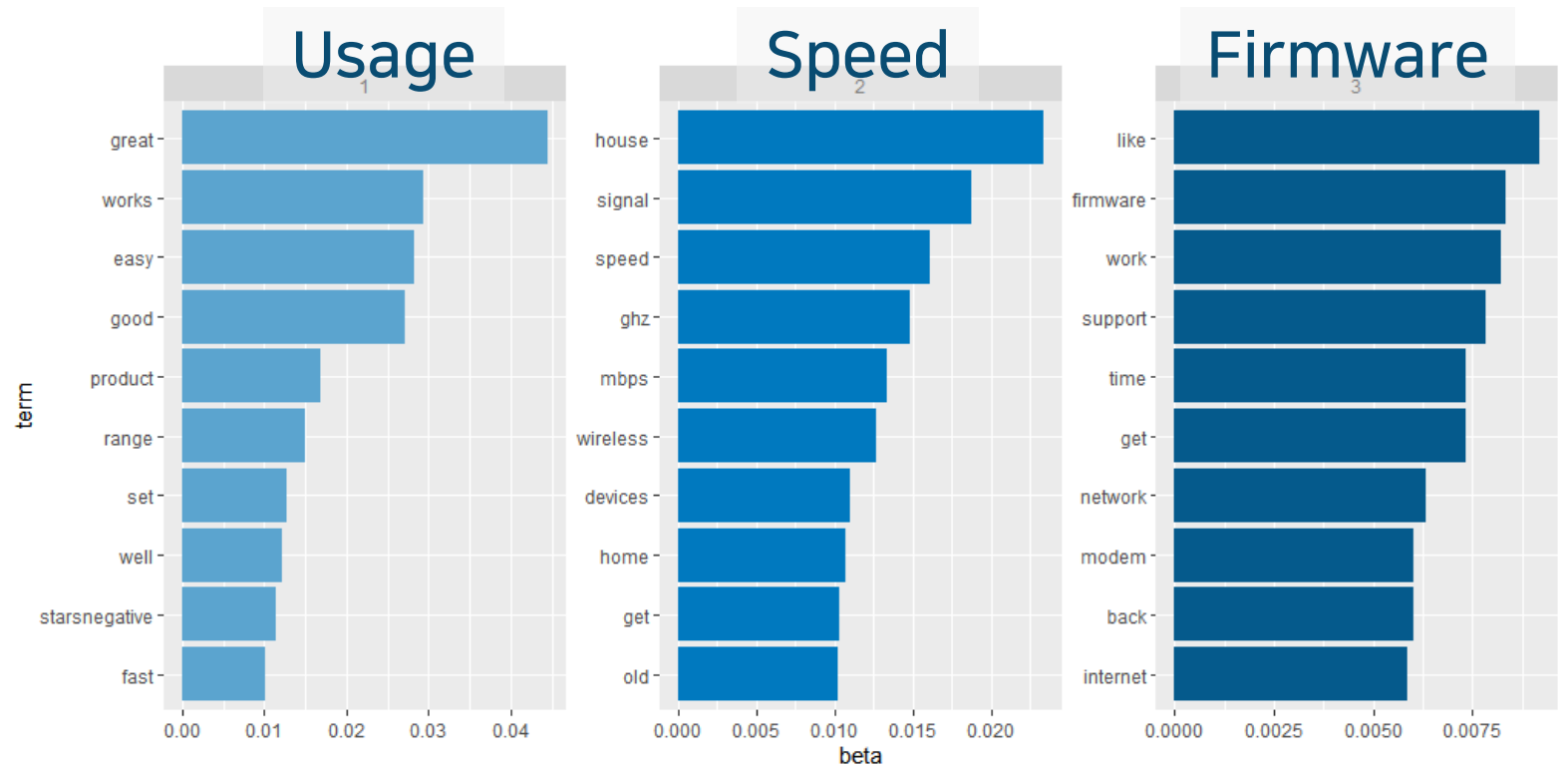
K-means Clustering All Reviews (n=3)



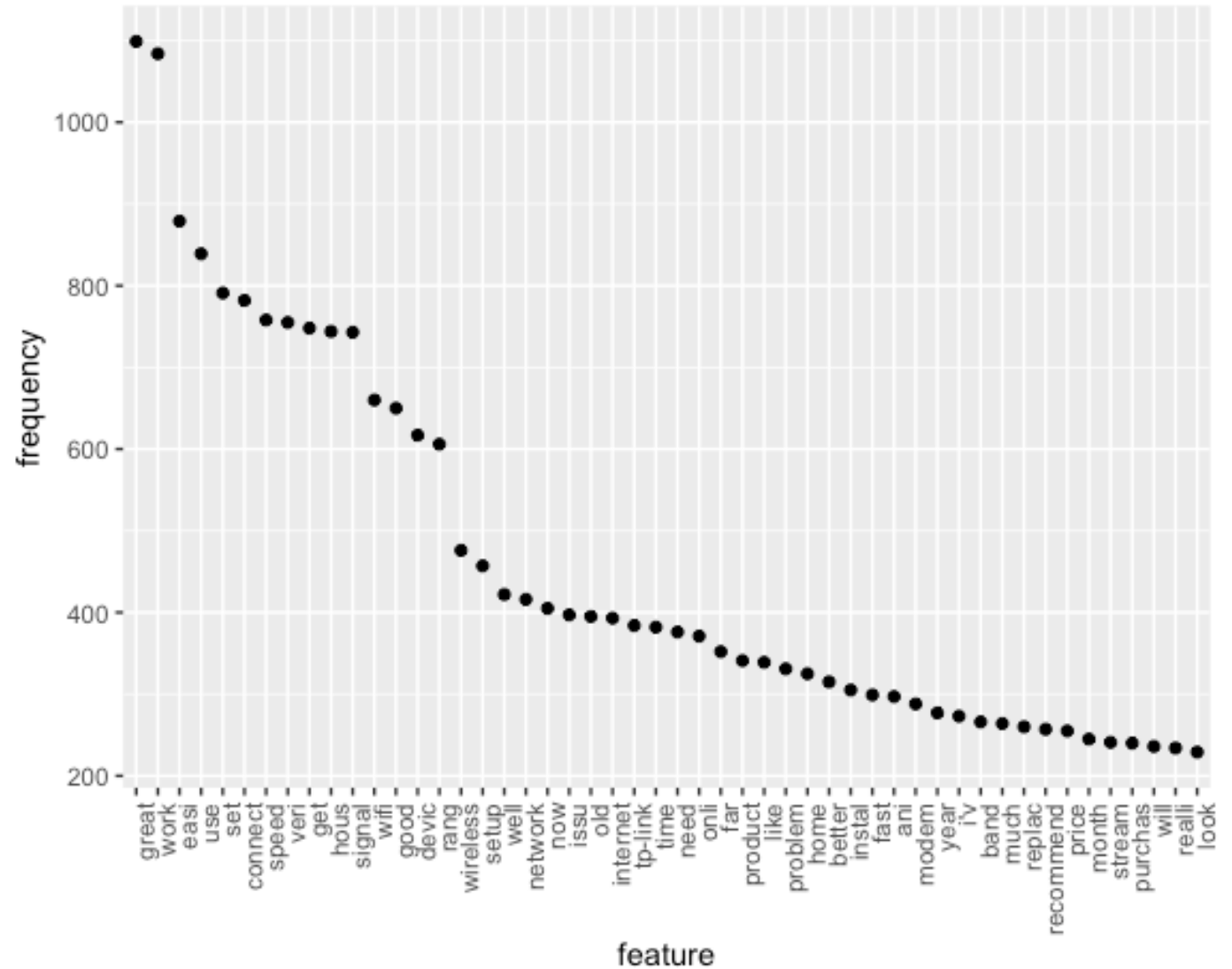
K-means Clustering All Reviews (n=2)



Topic Modeling All Reviews



Frequency Plot Positive Reviews



Association Positive Reviews

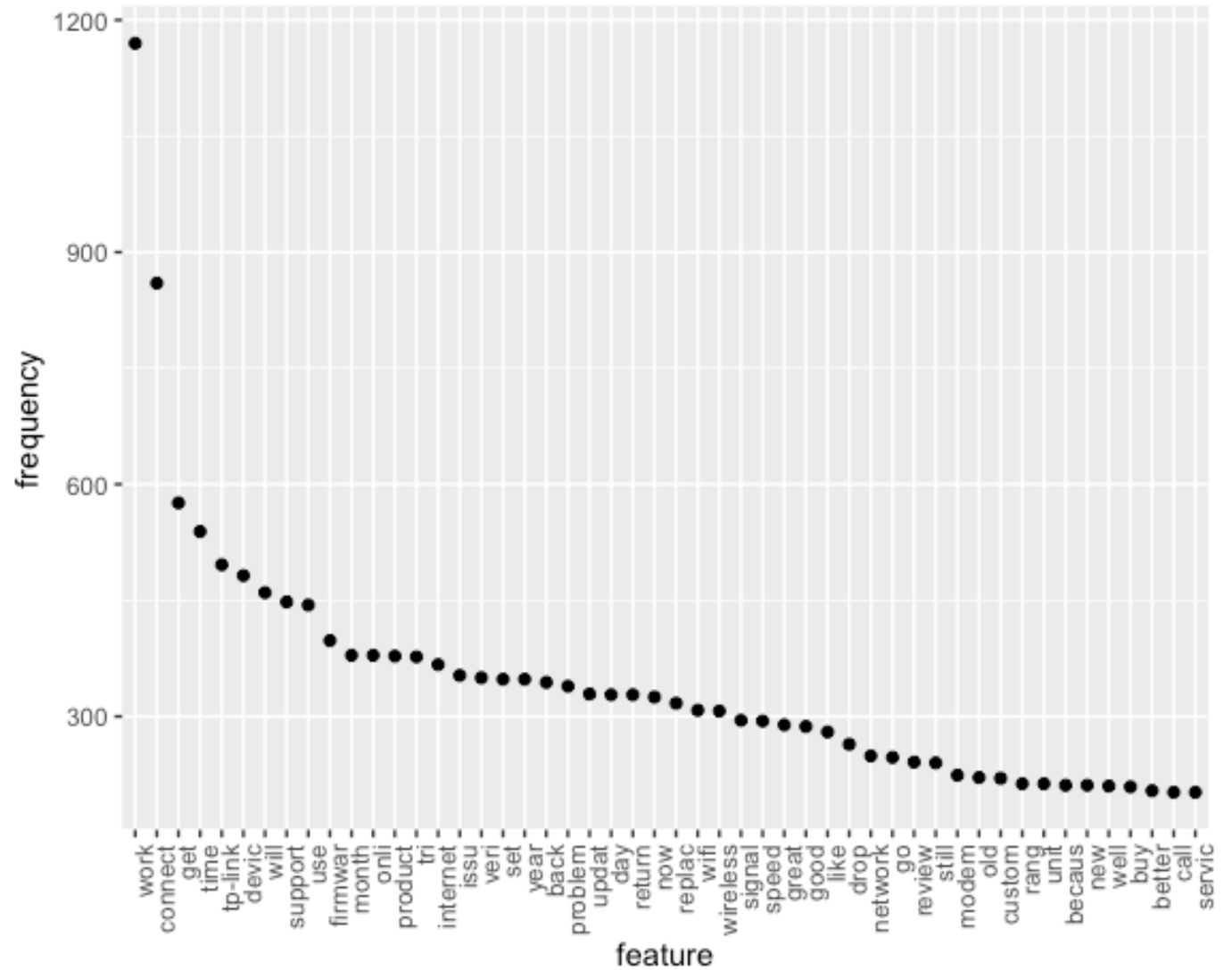
\$great

works	price	range	product	house
0.20	0.16	0.12	0.10	0.10

\$set

easy
0.37

Frequency Plot Negative Reviews



Association
Negative Reviews

\$work

get	like	didnt	time	doesnt	support	devices
0.35	0.29	0.28	0.28	0.28	0.27	0.27
firmware	still	update	will	working	going	problem
0.27	0.27	0.27	0.25	0.24	0.23	0.23
try	review	hours	said	well	access	works
0.23	0.23	0.21	0.21	0.21	0.20	0.20

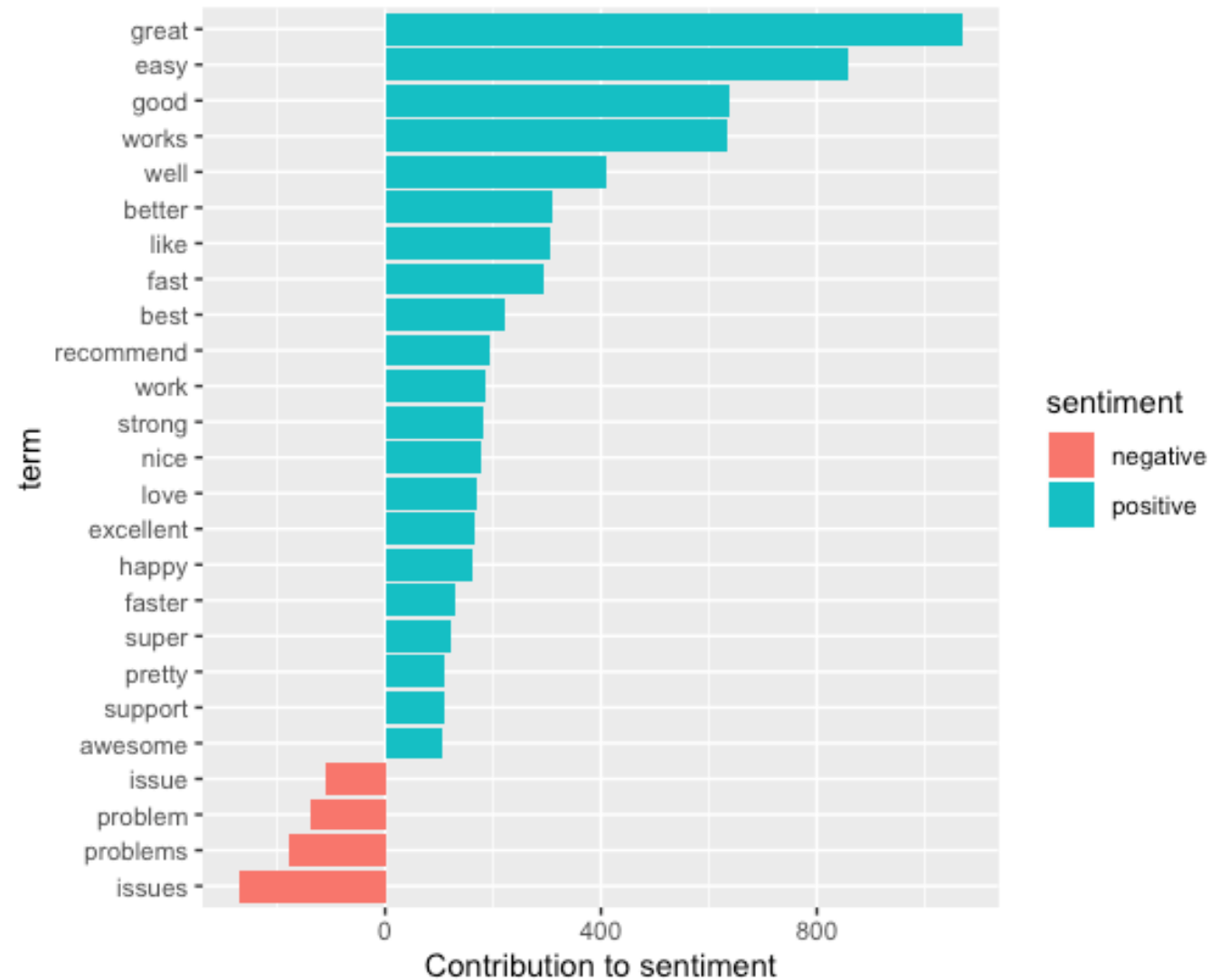
Association
Negative Reviews

\$firmware

update	settings	devices	like	support	work	issues
0.39	0.34	0.31	0.31	0.29	0.27	0.26
access	problem	still	well	new	time	using
0.26	0.25	0.24	0.24	0.24	0.23	0.22
doesnt	reboot	problems	connected	get	network	
0.21	0.21	0.21	0.21	0.20	0.20	

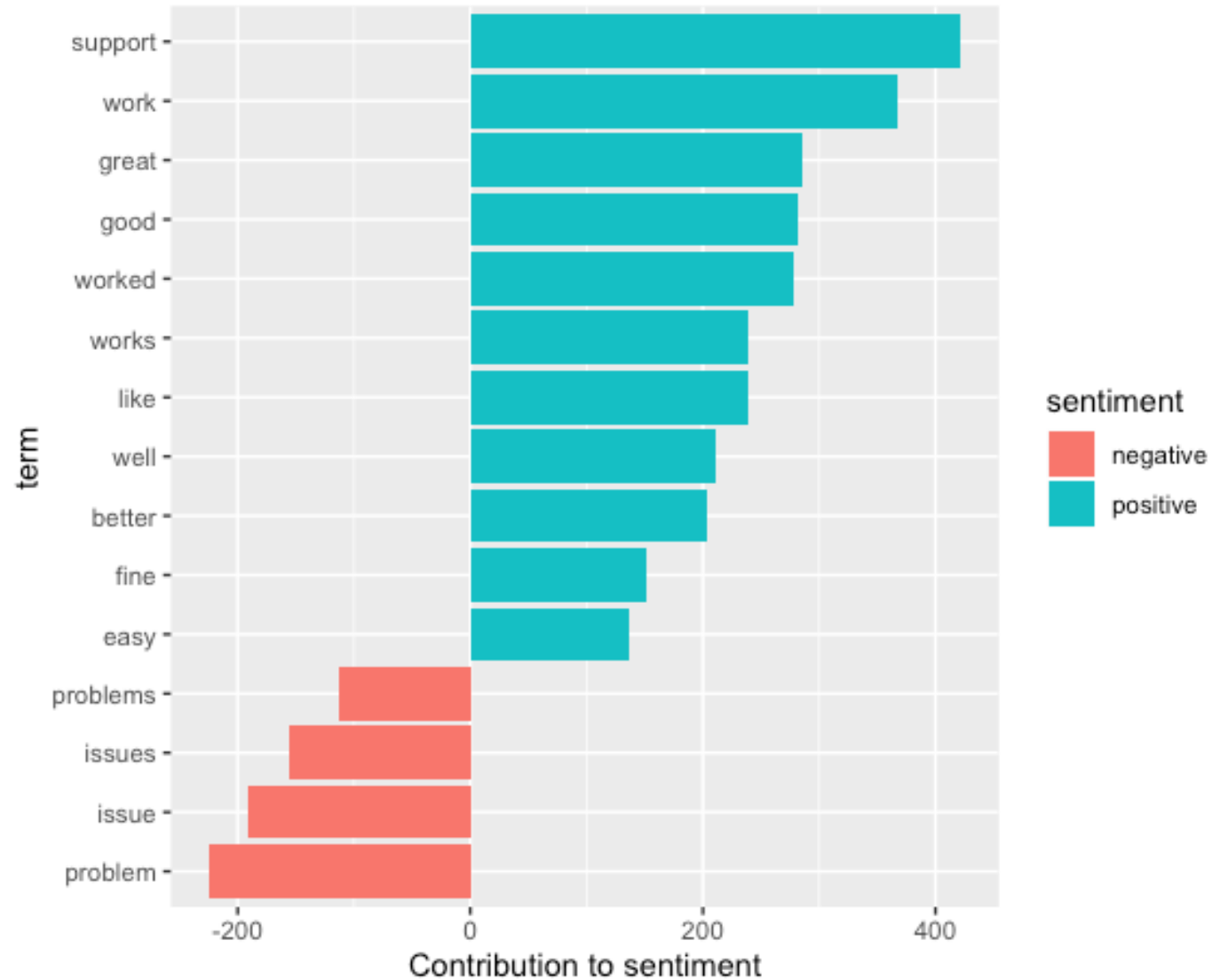
Sentimental Analysis

Positive Reviews



Sentimental Analysis

Negative Reviews



Object

To Reduce Discrepancy between Ratings and Reviews

How

Separating Reviews by Sentiment of Words Mentioned

Code Structure

- 1.Counting Positive/Negative sentiment word
- 2.K-means & Clustering
- 3.Making Data Partition
- 4.Training & Modeling
- 5.Testing

Preprocessing

ID	Sentiment_based_on_rating	pos_w	neg_w	comp	c
2912	0	2	0	0	
2913	0	0	0	0	
2914	0	0	1	0	
2916	0	3	1	0	
2917	0	0	0	0	
2918	0	0	2	0	
2919	0	0	1	0	
2920	0	0	0	0	
2922	0	2	0	0	
2923	0	2	0	0	
2925	0	3	2	0	
2926	0	2	0	0	
2927	0	1	0	0	
2929	0	1	0	0	
2931	0	0	0	0	
2932	0	0	0	0	

Testing Result

Training Set

	1	2
0	172	14
1	2131	191

Ambiguous Reviews

14.47%

Test Set

	1	2
0	37	533
1	3	53

Ambiguous Reviews

14.38%

Anecdotal Referencing

#1 Rating : 3 Stars

Router seems good, BUT it did not cover my whole home: 1 story and about 2200sqft. I still needed to supplement with extenders, which for the price of them both, I bought a Mesh wifi, now i have realiable connection all through my home. I guess if your home is smaller and you dont have many devices this will work.

#2 Rating : 1 Stars

Suffice to say, while the hardware is good, I am not going to purchase another product from a company with such lackluster support and poor communication.

Anecdotal Referencing

#3 Rating : 4 Stars

Awsome, money well spent. The interface is very easy to comprehend. And the wireless network works amazingly well. And a very easy set up. I would recommend this to anyone for fiber or just home use.

12/19/18- Dead as of today it worked well for 2 years but 2 years is not a huge life time for routers still a good price to performance.

Features and Insights from Analysis

- Based on the analysis of positive reviews, TP-LINK has good reputation on its range, price, and easy setting, so not necessarily reposition it
- Still, there are malfunctioning issues on device and critical problem on firmware from negative reviews
- From the result of the ASUS's, it satisfies decent portion of premium customer niche
- From the result of the NETGEAR's, it receives positive opinions on its easy-to-use app
- By anecdotal referencing, some customers were satisfied with their product, but changed not to be because of the durability

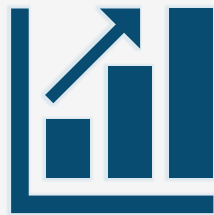
Suggestion



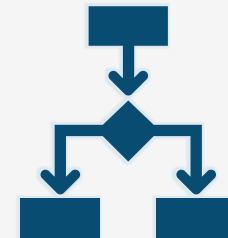
Improve Firmware



Improve Application



More Promotion on Premium Line



Review Classification Algorithm

Q&A