

Amazon Prices and Sales

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Abstract

Amazon's ratings system plays a crucial role in guiding consumer purchases and shaping product visibility in the marketplace. It operates primarily through user-generated reviews and star ratings, reflecting customers' experiences and satisfaction levels. High ratings generally lead to increased sales and better search rankings, while negative ratings can significantly hinder a product's success. The system encourages transparency but is also subject to manipulation, as some sellers may attempt to game the ratings through fake reviews. Overall, Amazon's ratings influence consumer behavior, drive competition among sellers, and impact on the overall shopping experience on the platform. Understanding the dynamics of this system is essential for both buyers and sellers navigating the e-commerce landscape.

Data Dictionary:

Product ID: The identification of the product.

Product Name: The name of the product.

Category: The type of product (electronic, computer)

Discounted Price: The price after a discount

Actual Price: The price of the appliance or product

Discount Price Percentage: The percentage of the price being discounted

Rating: The rating of the product on a 1-5 scale

Rating Count: How many people or users have rated the product

About Product: A description of the product

User ID: The identification of the user

User Name: The name of the user

Review ID: The identification of the reviewer

Review Title: A summary of the review

Review Content: The description of the review

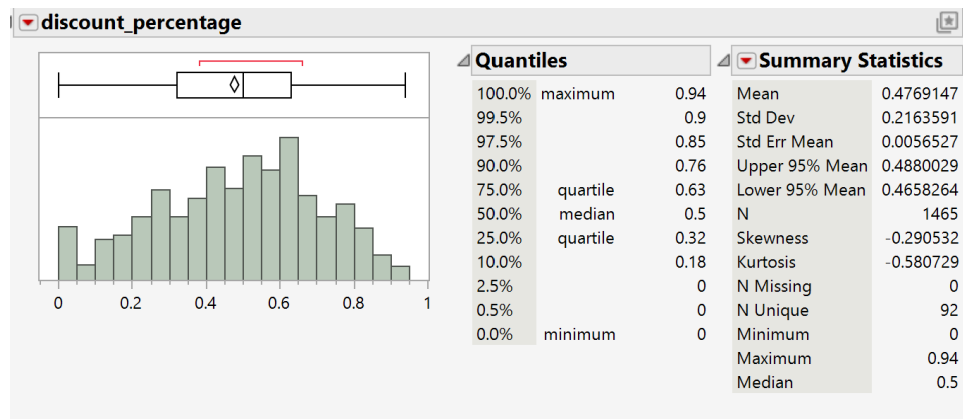
Img Link: The image of the product

Product Link: The link to purchase or view the product

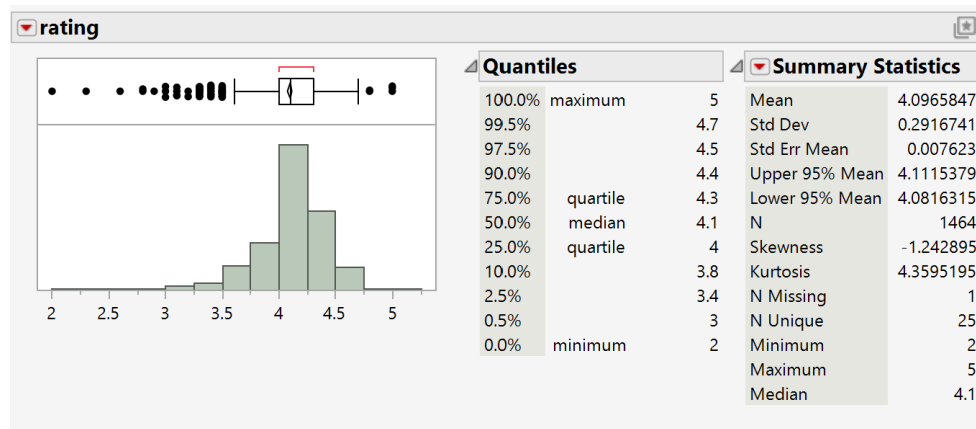
Univariate Analysis

Histogram

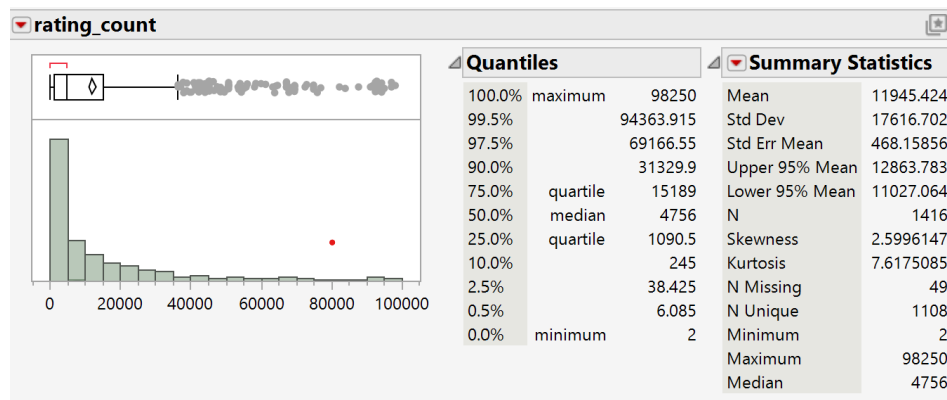
Discount Percentage



Rating



Rating Count

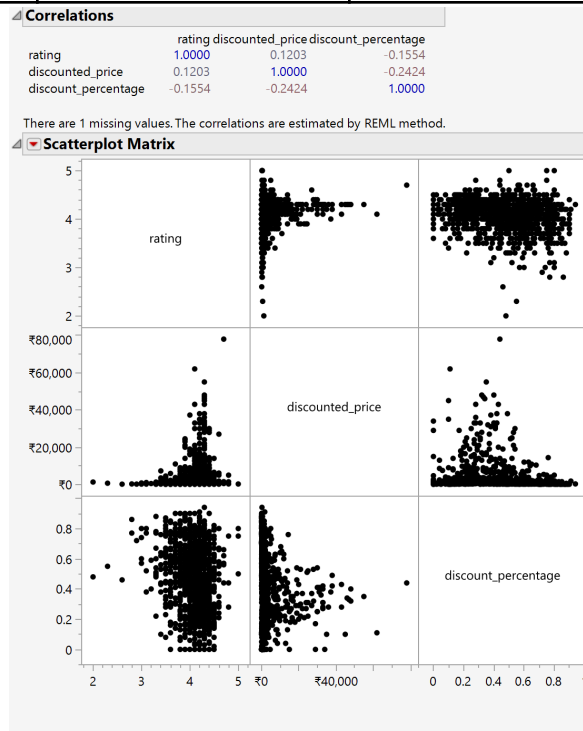


Bivariate Analysis Summary Table:

Feature	Analysis	Effect Size	P-Value
Discount Percentage	R-Squared	0.0254672	p<0.0001
Rating Count	R-Squared	0.0634647	p<0.0001
Product ID	T-test	0.092263	0
Product Name	F-stat	0.093047	p<0.0001
Category	F-stat	0.590718	p<0.0001
Discounted Price	T-test	1.80236	p<0.0001
Actual Price	T-test	0.080225	p>0.8473
About Product	F-stat	0.096231	p<0.0001
User ID	T-test	0.096231	p<0.0001
UserName	F-stat	0.104415	0
Review ID	T-test	0.104415	0
Review Title	F-stat	0.104415	0
Review Content	F-stat	0.102862	0
Img Link	F-stat	0.088257	p<0.0001
Product Link	F-stat	0.085074	0

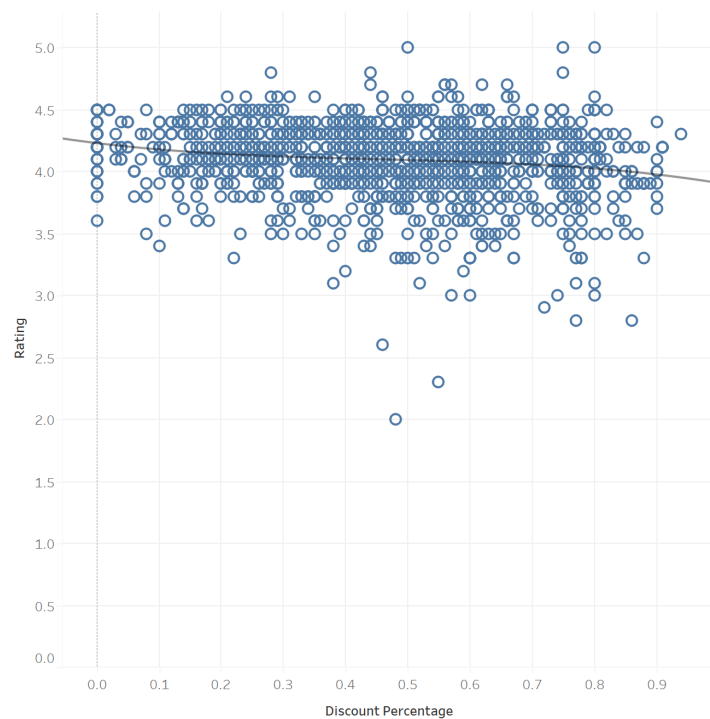
Correlation Matrix

	Rating	Discounted Price	Discount Percentage
Rating	1	0.1203	-0.1554
Discounted Price	0.1203	1	-0.2424
Discount Percentage	-0.1554	-0.2424	1



Discounted Percentage

DiscountedPercentage_Rating



Discount Percentage vs. Rating.

R^2 : 0.0254672

P-value: < 0.0001

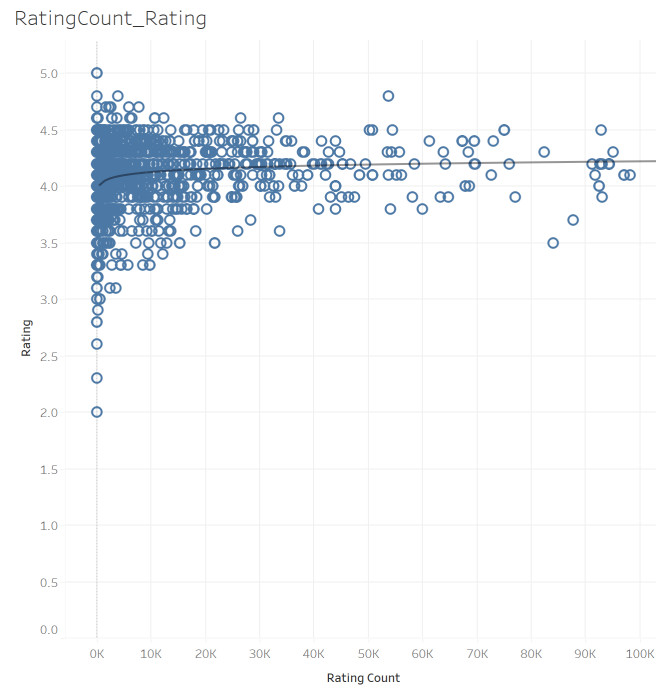
Equation: $\text{Rating} = -0.775401 \cdot \text{Discount Percentage}^3 + 1.06369 \cdot \text{Discount Percentage}^2 - 0.610195 \cdot \text{Discount Percentage} + 4.22967$

Coefficients

Term	Value	StdErr	t-value	p-value
Discount Percentage^3	-0.775401	0.561563	-1.38079	0.167555
Discount Percentage^2	1.06369	0.754866	1.40911	0.159015
Discount Percentage	-0.610195	0.294566	-2.0715	0.0384873
intercept	4.22967	0.0341021	124.03	< 0.0001

Summary: There is an effect of *Discounted Percentage* on *Rating*. ($R^2 = 0.0254672$ and $p < 0.0001$).

Rating Count



Rating Count vs. Rating.

R^2 : 0.0634647

P-value: < 0.0001

Equation: $\ln(\text{Rating}) = 0.00987962 * \ln(\text{Rating Count}) + 1.32612$

Coefficients

Term	Value	StdErr	t-value	p-value
$\ln(\text{Rating Count})$	0.0098796	0.0010096	9.78532	< 0.0001
intercept	1.32612	0.0084805	156.372	< 0.0001

Summary: There is an effect of *Rating Count* on *Rating*. ($R^2 = 0.0634647$ and $p < 0.0001$).

ProductID

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
product_id	1349	124.46292	0.092263	.	.
Error	114	0.00000	0.000000		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
B0B1F6GQP5	1	3.80000	0	3.8000	3.8000
B0B1MDZV9C	1	3.90000	0	3.9000	3.9000
B0B1NX6JTN	1	4.30000	0	4.3000	4.3000
B0B1YVCJ2Y	1	4.30000	0	4.3000	4.3000
B0B1YY6JJL	1	4.30000	0	4.3000	4.3000
B0B1YZ9CB8	1	4.30000	0	4.3000	4.3000
B0B1YZX72F	1	4.30000	0	4.3000	4.3000
B0B2C5MJN6	1	4.10000	0	4.1000	4.1000
B0B2CPVXHX	1	4.10000	0	4.1000	4.1000
B0B2CWRDB1	1	4.20000	0	4.2000	4.2000
B0B2CZTCL2	1	3.80000	0	3.8000	3.8000
B0B2DD8BQ8	1	4.10000	0	4.1000	4.1000
B0B2DD66GS	1	4.50000	0	4.5000	4.5000
B0B2DJ5RVQ	1	4.30000	0	4.3000	4.3000
B0B2DJDCPX	2	3.90000	0	3.9000	3.9000
B0B2DZ556R	1	4.00000	0	4.0000	4.0000
B0B2PQL5N3	1	4.20000	0	4.2000	4.2000
B0B2RBP83P	1	4.00000	0	4.0000	4.0000
B0B2X35B1K	1	4.10000	0	4.1000	4.1000
B0B3CPQ5PF	1	4.30000	0	4.3000	4.3000
B0B3CQBRB4	1	4.30000	0	4.3000	4.3000
B0B3D39RKV	1	4.30000	0	4.3000	4.3000
B0B3DV7S9B	1	3.60000	0	3.6000	3.6000
B0B3G5XZN5	1	4.50000	0	4.5000	4.5000
B0B3JSWG81	1	3.10000	0	3.1000	3.1000
B0B3MMYHYW	1	4.20000	0	4.2000	4.2000
B0B3MQXNFB	1	4.00000	0	4.0000	4.0000
B0B3MWYCHQ	2	4.20000	0	4.2000	4.2000
B0B3N7LR6K	2	4.30000	0	4.3000	4.3000
B0B3N8VG24	1	4.00000	0	4.0000	4.0000
B0B3NDPCS9	1	4.30000	0	4.3000	4.3000
B0B3RHX6B6	1	3.90000	0	3.9000	3.9000
B0B3RRWSF6	2	4.30000	0	4.3000	4.3000
B0B3RS9DNF	1	4.30000	0	4.3000	4.3000
B0B3RSDSZ3	1	4.30000	0	4.3000	4.3000
B0B3TBY2YX	1	4.30000	0	4.3000	4.3000

Summary: There is an effect of *Product ID* on *Rating*. ($R^2 = 0.092263$ and $p=0$).

Product Name

	Number	Mean	Std Error	Lower 95%	Upper 95%
	1	4.50000	0.04375	4.4134	4.5866
	1	3.40000	0.04375	3.3134	3.4866
	1	4.40000	0.04375	4.3134	4.4866
	1	3.90000	0.04375	3.8134	3.9866
	1	3.20000	0.04375	3.1134	3.2866
	1	3.00000	0.04375	2.9134	3.0866
	1	3.30000	0.04375	3.2134	3.3866
	1	3.60000	0.04375	3.5134	3.6866
	1	3.60000	0.04375	3.5134	3.6866
	1	3.90000	0.04375	3.8134	3.9866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.20000	0.04375	4.1134	4.2866
	1	3.50000	0.04375	3.4134	3.5866
	1	3.70000	0.04375	3.6134	3.7866
	1	3.30000	0.04375	3.2134	3.3866
	1	3.90000	0.04375	3.8134	3.9866
	1	3.40000	0.04375	3.3134	3.4866
	1	4.60000	0.04375	4.5134	4.6866
	1	4.10000	0.04375	4.0134	4.1866
	1	4.10000	0.04375	4.0134	4.1866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.30000	0.04375	4.2134	4.3866
	1	4.20000	0.04375	4.1134	4.2866
	1	3.90000	0.04375	3.8134	3.9866
	1	3.80000	0.04375	3.7134	3.8866
	1	4.10000	0.04375	4.0134	4.1866
	1	3.80000	0.04375	3.7134	3.8866
	1	4.00000	0.04375	3.9134	4.0866
	1	4.10000	0.04375	4.0134	4.1866

Category

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
category 1	8	4.72574	0.590718	7.1782	<.0001*
Error	1455	119.73718	0.082294		
C. Total	1463	124.46292			

Means for Oneway Anova

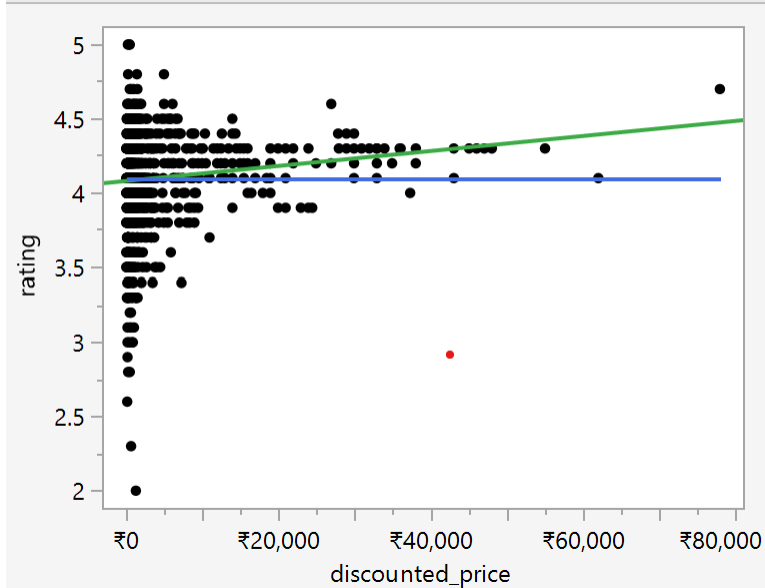
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
Car&Motorbike	1	3.80000	0.28687	3.2373	4.3627
Computers&Accessories	453	4.15497	0.01348	4.1285	4.1814
Electronics	526	4.08175	0.01251	4.0572	4.1063
Health&PersonalCare	1	4.00000	0.28687	3.4373	4.5627
Home&Kitchen	447	4.04072	0.01357	4.0141	4.0673
HomeImprovement	2	4.25000	0.20285	3.8521	4.6479
MusicalInstruments	2	3.90000	0.20285	3.5021	4.2979
OfficeProducts	31	4.30968	0.05152	4.2086	4.4107
Toys&Games	1	4.30000	0.28687	3.7373	4.8627

Std Error uses a pooled estimate of error variance

Summary: There is an effect of *Category* on *Rating*. ($R^2 = 0.590718$ and $p < 0.0001$).

Discounted Price

Bivariate Fit of rating By discounted_price



Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	1.80236	1.80236	21.4824
Error	1462	122.66056	0.08390	Prob > F
C. Total	1463	124.46292		<.0001*

Summary: There is an effect of *Discounted Price* on *Rating*. ($R^2 = 1.80236$ and $p < 0.0001$).

Actual Price

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
actual_price	448	35.94090	0.080225	0.9199	0.8473
Error	1015	88.52202	0.087214		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
₹1,000	10	4.13000	0.09339	3.9467	4.3133
₹1,010	1	4.10000	0.29532	3.5205	4.6795
₹1,020	2	4.10000	0.20882	3.6902	4.5098
₹1,052	1	4.30000	0.29532	3.7205	4.8795
₹1,075	1	4.10000	0.29532	3.5205	4.6795
₹1,090	2	4.30000	0.20882	3.8902	4.7098
₹1,099	19	4.11579	0.06775	3.9828	4.2487
₹1,39,900	1	4.70000	0.29532	4.1205	5.2795
₹1,100	3	4.00000	0.17050	3.6654	4.3346
₹1,109	1	4.40000	0.29532	3.8205	4.9795
₹1,111	1	4.20000	0.29532	3.6205	4.7795
₹1,129	1	4.00000	0.29532	3.4205	4.5795
₹1,130	1	4.20000	0.29532	3.6205	4.7795
₹1,150	1	4.10000	0.29532	3.5205	4.6795
₹1,190	3	4.13333	0.17050	3.7988	4.4679
₹1,199	10	4.03000	0.09339	3.8467	4.2133
₹1,200	3	3.96667	0.17050	3.6321	4.3012
₹1,208	2	4.10000	0.20882	3.6902	4.5098
₹1,230	1	4.10000	0.29532	3.5205	4.6795
₹1,245	2	3.90000	0.20882	3.4902	4.3098
₹1,249	2	3.85000	0.20882	3.4402	4.2598
₹1,282	1	4.20000	0.29532	3.6205	4.7795
₹1,290	3	4.16667	0.17050	3.8321	4.5012
₹1,295	5	4.30000	0.13207	4.0408	4.5592
₹1,299	21	4.16667	0.06444	4.0402	4.2931
₹1,300	3	4.06667	0.17050	3.7321	4.4012
₹1,339	1	4.20000	0.29532	3.6205	4.7795
₹1,345	2	3.85000	0.20882	3.4402	4.2598
₹1,350	1	4.30000	0.29532	3.7205	4.8795
₹1,390	2	4.20000	0.20882	3.7902	4.6098
₹1,395	1	4.20000	0.29532	3.6205	4.7795
₹1,399	4	4.00000	0.14766	3.7102	4.2898
₹1,400	3	4.30000	0.17050	3.9654	4.6346
₹1,440	1	4.20000	0.29532	3.6205	4.7795
₹1,445	1	3.90000	0.29532	3.3205	4.4795

Summary: There is *not an* effect of *Actual Price* on *Rating*. ($R^2 = 0.080225$ and $p > 0.8473$).

About Product

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
about_product	1291	124.23426	0.096231	72.3837	<.0001*
Error	172	0.22867	0.001329		
C. Total	1463	124.46292			
Means for Oneway Anova					
Level					
-1 meter type c to c cable fast charging cable Convenient for all types of USB C Laptops, Tablets, And Smartphones.]- 6.5 Amp USB C Cable compatibility with All 60W 45W 30W 18W 15W USB-C Power Adapters, Support Pd 3.0 And Qc 3.0 Fast Charge for Your De					
*Please match your previous remote before placing order. or for verification of remote contact our coustmer care 7738090464					
*Please match your previous remote before placing order. or for verification of remote contact our coustmer care 7738090464. * Its Electvision compatible remote for kodak LED.					
.The tough pure metal stainless- steel build makes it very sturdy and the inside part is only made from premium food grade stainless steel that keep your water out of the contamination from plastic materials and chemicals					
?Top Technology----8K@60HZ HDMI Cable? This 8K HDMI Cable uses the most cutting-edge technology, is compatible with 8K@60HZ and 4K@120HZ, clearly displays every particle, and accurately processes every signal source. With 8K HDMI's unique dynami					
[1.2 M LONG DURABLE CABLE]: The Konnect L is about 1.2 M long and this feature allows for maximum convenience of the user. Not only is the cable length ample it also is durably built which ensures that no matter how roughly its handled no harm is done to					
[1.2 M LONG DURABLE CABLE]: The Konnect L is about 1.2 M long and this feature allows for maximum convenience of the user. Not only is the cable length ample it also is durably built which ensures that no matter how roughly its handled no harm is done to					
[3 in 1 Fast Charging Cable]: 3 in 1 Multi Charging Cable Design, with Lightning, Type C, Micro USB connectors built-in. Compatible with most of the phones, one cable meets your three different demands: You can charge multiple devices at the same time.[imc					
[6 in 1 USB C Hub] - Verlux USB C hub comes with all the basic features you'd expect, including 1 x 4K@30Hz HDMI port, 1 x USB 3.0 Ports, 2 x USB 2.0 Ports, 1 x TF card slot, 1 x SD card slot. No software and drivers are required, plug and play. This USB C hub					
[10-day battery]: With a battery backup of 10 days, just concentrate on your game without stopping.[Noise Health Suite]: Automatically monitor your blood oxygen (SpO2 levels), real-time heart rate, and provide comprehensive analysis of your sleep quality (dee					
[20W HIGH-SPEED CHARGING]: The Adapto 20 is a Type-C Fast Charger, designed to charge your iPhone up to 59% in just 30 minutes![[3X FASTER]: Fast, durable, and dependable, the adaptor is designed to charge your iOS devices 3X faster than regular charg					
[20W PD FAST CHARGING]: It's supports 20W PD quick charge protocol, charge up to 50% in around 30 minutes. It is ideal for charging your USB type-c enabled devices at maximum speed[[USB-C to 8 Pin Cable]- It's offer rapid charging and syncing between USI					
[Amazon Fire Tv Stick Remote] New Replacement Voice Remote Control (2nd GEN) with Power and Volume Control Fit for Fire TV Device, compatible with Fire TV Cube (2nd Gen), Fire TV Stick (2nd Gen), Fire TV Stick 4K, Fire TV Cube (1st Gen), Amazon Fire TV Cu					
[Powerful & Efficient Motor]: This Pigeon Mixer Grinder has powerful 750 Watt Copper Motor with 3 speed controls gives an exceptional performance and provides fine mixing and grinding of the ingredients at 3 different speed levels. The motor comes with ai					
[CHARGE & SYNC FUNCTION]: This cable comes with charging & Data sync function for smartphones[[HIGH QUALITY MATERIAL]- TPE + Nylon Material to make sure that the life of the cable is enhanced significantly[[LONG CORD]- The Cable is extra thick 1.2 m					
[CHARGE & SYNC FUNCTION]: This cable comes with charging & Data sync function for smartphones[[HIGH QUALITY MATERIAL]- TPE + Nylon Material to make sure that the life of the cable is enhanced significantly[[LONG CORD]- The Cable is extra thick 1.2 m					
[CHARGE & SYNC FUNCTION]: This cable comes with charging & Data sync function[[HIGH QUALITY MATERIAL]- TPE + Nylon Material to make sure that the life of the cable is enhanced significantly[[LONG CORD]- The Cable is extra thick 1.2 meter long, optimiz					
[Compatibility] Spigen Genuine Case Compatible with iPhone 14 Pro max[Clear Design - Crystal clear transparency flaunts original phone design[Protection : Air Cushion Technology for shock absorption[Precise Fit : All connections and buttons are easy to reach a					
[Compatible Devices]: High-grade remote control Compatible with Vu LED / LCD TV Remote Control (Same Model Only). Farther transmitting distance, stable performance. Replaces your damage or old one and covers all the functions of the original remote.[[Ma					
[Compatible] All model of dth SD / HD / HD+ Plus / 4K DTH Set Top Box.[[Plug & Play] This is a Universal dth Remote - Also Works with All LED LCD TV (Pairing Required in some models)[[Important] This remote doesn't have feature of recording key and respect					
[High Compatibility]: Compatible for iPhone X/Xs Max/Xr, Phone 8/8 Plus,Phone 7/7 Plus,Phone 6s/6s Plus,Phone 6/6 Plus,5/5s/5c/SE,Pad Pro,Pad Air 1/2,Pad mini 1/2/3,Pod nano7,Pod touch and more devices.[[Fast Charge&Data Sync] : It can charge and sync si					
[High Compatibility]: iPhone X/XsMax/Xr,iPhone 8/8 Plus,iPhone 7/7 Plus,iPhone 6s/6s Plus,iPhone 6/6 Plus,iPhone 5/5s/5c/se,iPad Pro,iPad Air 1/2,iPad mini 1/2/3,iPod nano7,iPod touch and more apple devices.[[Fast Charge&Data Sync] : It can charge and sync					
[High Compatibility]: iPhone X/XsMax/Xr,iPhone 8/8 Plus,iPhone 7/7 Plus,iPhone 6s/6s Plus,iPhone 6/6 Plus,iPhone 5/5s/5c/se,iPad Pro,iPad Air 1/2,iPad mini 1/2/3,iPod nano7,iPod touch and more apple devices.[[Fast Charge&Data Sync] : It can charge and sync					
[High Compatibility]: iPhones, iPad Air, iPad mini, iPod Nano and iPod Touch][Fast Charge&Data Sync] : It can charge and sync simultaneously at a rapid speed, Compatible with any charging adaptor, multi-port charging station or power bank.[[Durability] : Durat					
[High Compatibility]: iPhones, iPad Air, iPad mini, iPod Nano and iPod Touch][Fast Charge&Data Sync] : It can charge and sync simultaneously at a rapid speed, Compatible with any charging adaptor, multi-port charging station or power bank.[[Short and Conve					
[High Compatibility]: Phone X/XsMax/Xr, Phone 8/8 Plus,Phone 7/7 Plus,Phone 6s/6s Plus,Phone 6/6 Plus,Phone 5/5s/5c/se,Pad Pro,Pad Air 1/2,Pad mini 1/2/3,Pod nano7,Pod touch and more devices.[[Fast Charge&Data Sync] : It can charge and sync simultaneou					
[High Compatibility]: This iphone data cable supports with iPhone 6,6s,6 plus,6s plus,7,7 plus,.8 8plus,xs,xs,11 pro max,12 mini pro max,13 mini pro max,iPad Air, iPad mini, iPod Nano and iPod Touch][Fast Charge&Data Sync] : It can charge and sync simultaneou					
[LATEST IMPROVED TECHNOLOGY]: Portronics New RuffPad 12E LCD Writing Tablet uses the Newest LCD pressure sensitive technology and lets you draw thick and thin lines as per your preference based on the pressure on the stylus. It comes with a large 12 in					
[Make Your Wired Alexa Echo Dot Looks Wireless]- Still figuring out how to the extra long cord of your Alexa Echo Dot?This adapter cord holder will be your saver.The adapter holder will keep the wall adapter and cord both well organized, and directly make yo					
[NEW LAUNCH - INNOVATIVE DESIGN] EFFICIENT PURIFICATION TECHNOLOGY - Refair AX30 has the tapered design with an H13 HEPA filter and Smart Negative Ions feature which makes this device perform better and it comes with an effective CADR of 16.2 r					
[NOTE ->->-Not Support to DVR and HDTV].[[CONNECTIVITY]- Allows you to connect a desktop or notebook computer laptop to a WIFI wireless network and Mobile Internet high-speed internet connection]->->[DRIVER] - First You Need to install Driver For Whis					
[PORTABLE SIZE]- 98mm*96mm, STRIFF desk phone stand is foldable and easy to slip into your pocket suitable for bed,table and home)[[MULTI ANGLE ADJUSTABLE] - Directly adjust to your preferred angle among 10 different viewing angles, from 0° to 100°.Hol					
[PORTABLE SIZE]- 98mm*96mm*19mm. STRIFF desk phone stand is foldable and easv to slip into your pocket suitable for bed,table and homel[MULTI ANGLE ADJUSTABLE] - Directly adjust to your preferred anole amono 10 different viewino anoles, from 0° to 1					

Number	Mean	Std Error	Lower 95%	Upper 95%
2	4.50000	0.02578	4.4491	4.5509
1	3.60000	0.03646	3.5280	3.6720
1	4.00000	0.03646	3.9280	4.0720
1	3.40000	0.03646	3.3280	3.4720
1	4.40000	0.03646	4.3280	4.4720
2	4.10000	0.02578	4.0491	4.1509
1	4.10000	0.03646	4.0280	4.1720
1	4.00000	0.03646	3.9280	4.0720
1	4.10000	0.03646	4.0280	4.1720
2	4.00000	0.02578	3.9491	4.0509
1	4.10000	0.03646	4.0280	4.1720
3	4.20000	0.02105	4.1584	4.2416
1	3.30000	0.03646	3.2280	3.3720
1	3.40000	0.03646	3.3280	3.4720
2	4.30000	0.02578	4.2491	4.3509
2	4.20000	0.02578	4.1491	4.2509
6	4.15000	0.01489	4.1206	4.1794
1	4.30000	0.03646	4.2280	4.3720
1	3.70000	0.03646	3.6280	3.7720
1	4.30000	0.03646	4.2280	4.3720
1	4.20000	0.03646	4.1280	4.2720
2	4.20000	0.02578	4.1491	4.2509
1	4.20000	0.03646	4.1280	4.2720
1	3.70000	0.03646	3.6280	3.7720
1	4.20000	0.03646	4.1280	4.2720
1	4.20000	0.03646	4.1280	4.2720
1	4.20000	0.03646	4.1280	4.2720
2	3.90000	0.02578	3.8491	3.9509
1	4.10000	0.03646	4.0280	4.1720
1	4.30000	0.03646	4.2280	4.3720
1	3.80000	0.03646	3.7280	3.8720
1	4.20000	0.03646	4.1280	4.2720
1	4.10000	0.03646	4.0280	4.1720
2	4.20000	0.02578	4.1491	4.2509

Summary: There is an effect of *AboutProduct* on *Rating*. (R²= 0.096231 and p<0.0001).

User ID

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
user_id	1192	124.46292	0.104415		
Error	271	0.00000	0.000000		
C. Total	1463	124.46292			
Means for Oneway Anova					
Level					
AE2JTRKRTUOIVZWS2WDGTMNTU4Q,AF4QXCKB32VCDEVT03DGFNQVFNQ,AGAFYHMPFGVPR3M05Q4A,ZLAWP3A,AGNNWLEF6V57TKJFM75WHNFAIQ,AFVIPOPKMOCVCK3CMXUJIHMDWIMGA,AH6MFUU725GG4A3XALTSL2LIHA,AGQYTSKE2UBYARZ AE2OFVZSIE6K5BAPGG6MKCE35LA,AFEOAY5PB4XEYOL6DYSWJBOYSKQ,AEJTEYV7N93GMARSTJNPOG3AY3A,AFMQHAPYUAV7ZSPABOAVTNZVESWA,AEGYHN3DWMVMVH2RZLT2PH2A2U8EHA,AFIWP2JBBU06H5H3M355UEG4TZGA,AF7XGOMQWMA2ITB72BP AE2QS54SK357EMHTCIX34UBB2TA,AFGABX3WXI4C644LQXZG4Z7N9YKA,AE6DLJW3TAZT627XBMJBGJGCWYBPA,AFNKLWWSK4B9YFNHQBNGNO7QDZXUA,AGC5MKCR2T6BINKQSLXKV3QQWZKDA,AEZKV7KOH6QDS5N6Z6X6VKI3AC4VQ,AEPTTSPMSISL35SY9Y4T AE2TSIXR5S8XB6J7W57HOFKCOQ,AEQITFTZ57RDVYEGOSR8AD4VY2Q,AHPCH3AK3ZQDEKCN5ZJ56BD4HY2A,AH7506CQEPN6J3Q6VH4WIVD4HZUA,AHNK4EL2B05S6WRMONWHNWA5KRA,AERG3U7V5ISYCANZA73XCR6K2Z5ZA,AHAN5RDTJMGOCYJZKX AE2XBDQVDMXVH50WNR3635XNEQ,AFEWNC3WHCFYQ34RKDY6TQV5FZA,AFH5M4N2ORPAY4P6XVJ3OPZETQ,AGGJTBH2XKIUXXHKLZG7BDJCM,AGA2QZGV6RFFSG6EGZCEA55XSYKQ,AF6RMANVOWWUPHGAQCGE523WDTA,AHJUDYFZ2QJF2QNTH6 AE2XMB6CF45CPQIQ75CHNFEAXIA,AGGZZJ5GSAQAGYQSNZP73D7Q,AE6DYMUJAWPSVBSLLUQYNPSPQAJA,ACQY5OPHBPISA2P3WHPXQMBUJ2F5A,AGFVUN4637QPBULOVS9RRLQWPRAQ,AGFVDEDXE3ZWFAWGRUEPMDGISA,AGLGQHCAP4A5C7LFLU52 AE3DRCIUSP9SINPY2TZAUBIEVBA,AEOSTN9VHDXBWNGEZ68BMPR7LA,AHJRAQGG47ABVMM5ZQ7FF3QOPKA,AEWNNWALRDI3B4CQK7PM5ARCRM7Q,AE4UXJG8AZW66WRS5DAP9B6VHTQ,AH73D5XHOYMT7FCB6QCB477OC2QAQFOQ3JMM635WDFH AE3GJ4N2G2K6QIXYQD5H44CQ,AFJMCZWWZ74HZYTSQ5XGAAKOTQ,AGGOREGT3XXWXUJN2JN4L6JUAQ,AEONDPH3RWTEZMADDT72XDD5UBLQ,AEJQ7NWJZTDPI44AMPQK7DQLCQ,AGJRVDBXRIIR3G7HCF5CR6XDSA,AGU4IMQTKDZTL6FTDNGJ AE3JMEZH22EA7YAUQF7VOUIFQ,AEH252RWOOR6UFKAXRXJQMJOJ3MQ,AFZAJPTL7UPDCOSMY6ASV9JOECMQ,AEY7NLLYRUBHDIAFPM4O6PALCSQ,AF3IH3T2BP4MB3U34MNSKQRH4UQ,AF5IMXZTU7WVPW4MMKAECJNGVGFQ,AHHTH7G5V6ENNUTPEA AE3PTJFRVU3YMSYFN3ICDA5X6FA,AG5DGMXE65QXZIB6BJANVMCGHGQ,AE5VM7Y43HENVSJBNTJ84LCHDOHA,AHBWFF45D5LBN6R3W43JNZW4A2A,AGSOXL3BML55ANW7OYCFR8BWU6Q,AEY7GHR0FM3CCCHU6VOU5GAUQNCQ,AE6ELRHUIJHC3CN34I AE3Q6KSUK5PT5D5HFHYCRAQLQD5A,AFUGIFH5ZAFXRDS2HM4Q82KPKFUQ,AFK4NJOFSJGWLQIJIUARIJ6FYA,AFUOTYRFUXVPEBGKVZ27DR3CZUA,AFDLRSXKD26U3U3KD465QLFGZQRA,AH5VLM66SJK7J3IRG4NY7XVOQ55A,AE3MQNNHHULXURL55IAR7 AE3S2ZAEH765KJUVJ5DR6H82B83Q,AGVJFMSJIA,IGFDESDQ35SQ,AGQUDHYCM8W7DYS2HT5HA3QCZIEA,AFNXZNJNLIQTHKVRFT3VQAAFFGQA,AGVKQNNH57POK63FIB6EVC5GUAMQ,AEH4ZNOZ5SIDQLGODW54UZ6RVQJIA,AGBVAELUPMWCYDQKNA AE35OVHSPICM3F74MYLZQLXZSA,AGVJFSAQXURZU734BLXUJVA64A,AE3CCTKV26PO32KOGUKABJ4QAAA,AFVLM5ZPLIAB6G6W6FSFLEHETA,AGZGIO6G2BKPLG45N6Q4ZROQA54Q,AH3NLXVUDIHDFH6JVB83CJ4HWFQX,AH43NCUTAIEJEWGCFN6D6P6V AE3T4QW5KPNX5VAVCS5K43WSESQ,AECKXENTR2D54DHR2B6JYNXLU4Q,AH2TLZNVRSIEOCNNVMQCVWU62Q,AEWBIRJSEYLSRCKUJPMG52JUI2273A,AHWW4CNRSPTA5O3ZVOEKOUW6X6DA,AGV63VPYLU52WSULWUJOXW446K3Q,AH64KMBDUUVG25ZE AE3XHTL52IBMYH71L5K04DGTCDQAA,AH2HIHTLQMIH5IFDQCYLT2JIBMUCA,AEFZB452E6G2IGBY3RXU7C5OGTA,AE56M2J8C5J3I8MRAM3YTPV36HA,AEVA2YRT3OJQTU2U7EWDW7EKPPQ,AHDCG4HI43BOPMA4AH4NOT45JNL2Q,AHQIC5Y4A73NA4RFGR33PYO! AE4DPKX5AMUCVEM4543JPAWZA2A,AH26TKL4URXVFVZLVUJALU3LA37A,AH4TRU2DCGNKR6RTWJ2RIZ5VGLQ,AH7JD2KXCB32VIEPM4ZMZPFOVWQ,AGUN5Y5M3IFV5N2KYZUKPU46GA,AGUG43PLAEPSQFXRBS6ELUTOIQ,AH3E36EPFQ2YJ2EZWSCIN3TC AE4KODYP3MG25J6V7ZWV5CHA,AEETBDP73H634AUQ5FJ5UBNR63A,AEHKI54WKVMCADF6Y3HMR5IRMT7Q,AHQWAO5KNRUV7GN5FZJL3UJVLV2A,AFJDUYD58CYPU522GYHMMV54VQ,AFQRUDMIMRA32Y3JBUQNNWFREEUQ,AGS5MIDW4O7QLQGWWYZC AE4L3MBEACOH7Y7GGWQ72DUJ6SA,AELHNY42N2WPTZNSR42GOW2RO5SA,AG55T5JL5DUIIYAS4H54FEXO4JQ,AGSV575PUVIV53DFVJN4UEK2FBJA,AEQSYGVF7LV5IVQEXPC6VCMJLBJQ,AH4OBRDNZTV7DVLWTAV2V38422ANQ,AAHTBKW5JISIG46L2WI3QQZK AE4XKNCFRPT2UVC2DCMKXW4MVQ,AF4VJIKK6L5VY7Z7QZGE2JAG6Q,AEV7WXL52DB6Q4ATZ3A3E5L3Q,AGQUCM3GAU6HWOIUIQBR73AAR6A,AFRRH2VMJ63D5EXGYKIGH7QJYJQ,AE584QJTNKHTVKOPXPZ7B5VCQ,AHQ7D5TF5VWSIPO5AGIZ7VY AE5B5BRM3KPUUMGH2DOGGFHAEAA,AFY5TPRMQXERPD5FQGR3WHF3J27Q,AFH3LWABFWVDV36QEA7EDMVB87QO,AGVLQO56YOIYSE6RU3B634Q325Q,AE56AJOPJC6V2NF73NNWOLPERXA,AHWMBGU25OK2A2U2BXGWF507QCM,AEVYM76V5OXKLLJ AE5C3XOK2XJRKPSXOHXICJHG3UQ,AEUMRPMQFSRY25R7KIBIGUE52A,AHIV6ODN04FNGOPKPP3H8N505X4Q,AGUOJUMISWCWPU7XUMVMFQJIKZ6QKA,AEWFPD7Y7TBL3CFR2O5BEHA76IA,AGR33RA3J2DOYDL75JBWTHYKLZHA,AGKBZLUQRIRK76C5DFFRHJ AE5D3EMPEKTIA4U45Z3JIWXA2A,AF76KWKCMR6GNPUXKEB03N5Y7ZA,AEXM72ELXVFNAKRTVDJ5RAK42KQ,AAHYHKNM65BOIEHT5R3YR4QMEZMQ,AHYDP5GRW60THG2H7LYZV65SHZ4Q,AGQO5W4LCISBHT54SYCIS75C2Q,AGLAQ6L94AXICMGURK AE5DHPL6NSPLANZU5YMP62VZ7SQ,AGFLK3R8BEJGURQ7WA5JOC5YVZQ,AAHCEM32SEYIBW2IHJAF62AKV4VQ,AGUP33UQTAMC3Q7M4LOKIQMZIGA,AGZW06D4BG07B4PZ57BVFVKYARIQ,AGZTEQUP744MNNZ7EOTLOHQS5A6CWA,AFTKUCFRMCTXZQTTCJZ AE5DRFZQ56UNH7WLA6RSKLDXU3Q,AH7G7F56VNZQTGNRBLUKAK6UXQ,AEYISFG3PSXZTJUS67PADHKW55NQ,AF2ZSBIE45E3P46XZVFY0XR7JDA,AETRLDW2AUAGPHLEUIYFEZBBU5Q,AGOXKCKLMADHJXOXKL2XKPA38A,AHTDOMYCLQT2RTXY3HVZBMK AE5FZ5B3EE45Q26PNR7J5DRYA,AGL2B432J2VDHOSUW2OTQKOA56AMQ,AFWPWQ3287BLW23MMWYHGYLNGUCA,AFNUTGM5CBUEQVWPEQ57UABIIHAQ,AFYLL7VANUJ26M4L32777RRERA5QA,AH3VEJH6HMUCM37Z2NCMRNP653A,AE4BFYRLJQRZJLJ75I AE5R5HPVNYE3USXKPC5DDSQZPEQ,AGTCJGZ326MWRVYDZ83BJBSFY2Q,AFQKWBDBWHT7D3ESMLG5EHU6G5EA,AE5B5SH53GAAD5WYPYRZUKIQRKMA,AFISQ5P5C5G5MHX7T1WHTIQL25MA,AFH7XQ3PEVL6E4PWC5JKA67WJBQ,AGTHOOQW6ZML3FQTOVY AE5LEWHQDGISBM5HQ3QRHVA5OARQ,AFHZEHT2WQTEZ2RASJHYNJNNST3Q,AFEMOLRLTEGKTCITKW5GULW6G5EA,AE5B5SH53GAAD5WYPYRZUKIQRKMA,AFISQ5P5C5G5MHX7T1WHTIQL25MA,AFH7XQ3PEVL6E4PWC5JKA67WJBQ,AGTHOOQW6ZML3FQTOVY AE5TYL3HV3PPD3B8G5C5JHO6Z2SA,AEEBGASNPM4B22UUVJRWZPVHZTVA,AHCRBWWNGNHOHSTPA67UMTUKTCS7Q,AELCFVPIRUQFTZXU2H5AE3V3EPQ,AFJYBPS54S25WIFDX3BWJQJ7OFNQ,AG72DXD4ZHNILZCIKRN4AMP2DA,AG7OIKZNOYU3PEFVWYNO3 AE5VN6K6AGANNWY5EVB62MA3GMA,AGJEZ2VGFQDWL66Q3XOBPQ3YIHHQ,AEG3CL326V5AJNQLT2CBCTR6NHQ,AF2L335C5YJANG7RGOAG5FB6J3A,AFBUXSAGU3IQF6063H3C52YQ3KDA,AEWN455DFVQZ23BQZNRMYOYRAIVNA,AGRGAYQ5NNND6OH2E5 AE5X7F5KH8AKQZGUEJEF3VZFRQ,AEKV5YDRDHU76E543EFWKAWTDYQGA,AF2CYQ4QO4JYDIIR85R3Y2HYCA,AGXAFZHQ5GPKJ3IF3CUMM3F3KCT3A,AF5H5CZXXSPUL6A7CRZRJQPMJWQ,AFMFLXBICTWJGULWCOSXFB8RBCQJAHUVRK6JOSRKW2RAD6P9 AE6CROVJUPPH7BRT3JASNNRWSBPBQ,AHLSMROK5863XVBVMKY2J3GNB7Q,AFPCPHR52XKWFQ625WEACPUTXO7A,AHJUG7OYT35RSK5CNZUPNKHTQH57Q,AGVPDZ73B6LF5BBIZ3YGX2WRGJ2Q,AEQIEF23AAXT0BTLBICNMLPK662A,AGDP6WL6XEBCKABYTE AE6DY6VWTS5X3NHXZDQGM2JLQ,AE53UPNSCQ37JLZH2IOILRLCCA,AE5L7YEFFKTZRBEDUCMD56K6VQA,AHEV7347KPP6CEJPNWMMH4655L2A,AGBLMQ2TLWRDPQ32LGRIVVPVQOQVQ,AHKUSAJGBXVQQSDG4CRKHF6PFOQDQ,AEPEJ5YFPXKXPS2QH27P! AE6SULFZB6SUTFWSETNHLBPSJQ,AGV3YW3GZTJWU4F7C7UBOYRWEFUQ,AE6HGV455K2Y4C4QVQK42KZWDQ,AH2NX4DPSUQUJHAECC8RBJKQ,AE47MXJRDNI6VPRKKW5KDS66AFQ,AEHOGFWLLZ3XVB3FKNMZU5QBQOQQ,AGCLU4M3E346F7J4DKXK AF6P4I5Q4PNVYNVMMWMMGNC73CDA,AGORBNH74HCPJ3NP7WJ4GFRDJA,AHWW6KFDN777GNFPMJ1INX7T1H3RA,AFRR4HJ1IRKRTYFRFXHPRAPFQ,AF77F3QFFCA76M7HIA7CHUPLIJ,AAH6P7HW7P57NTKSCW5W6N27Q,AFQ7TRAXIMMRNHI6V9P9I					

Number	Mean	Std Error	Lower 95%	Upper 95%
2	4.40000	0	4.4000	4.4000
2	4.00000	0	4.0000	4.0000
1	3.50000	0	3.5000	3.5000
1	4.20000	0	4.2000	4.2000
1	3.50000	0	3.5000	3.5000
1	4.10000	0	4.1000	4.1000
1	4.20000	0	4.2000	4.2000
1	4.50000	0	4.5000	4.5000
1	4.30000	0	4.3000	4.3000
1	4.30000	0	4.3000	4.3000
1	4.30000	0	4.3000	4.3000
3	4.20000	0	4.2000	4.2000
1	4.00000	0	4.0000	4.0000
1	4.30000	0	4.3000	4.3000
1	4.10000	0	4.1000	4.1000
2	4.00000	0	4.0000	4.0000
1	4.40000	0	4.4000	4.4000
1	4.30000	0	4.3000	4.3000
1	3.80000	0	3.8000	3.8000
1	4.00000	0	4.0000	4.0000
1	4.20000	0	4.2000	4.2000
1	3.80000	0	3.8000	3.8000
1	4.30000	0	4.3000	4.3000
1	3.70000	0	3.7000	3.7000
1	4.20000	0	4.2000	4.2000
1	3.60000	0	3.6000	3.6000
1	4.30000	0	4.3000	4.3000
1	4.30000	0	4.3000	4.3000
1	4.00000	0	4.0000	4.0000
1	3.80000	0	3.8000	3.8000
1	4.10000	0	4.1000	4.1000
2	4.10000	0	4.1000	4.1000
1	4.30000	0	4.3000	4.3000
1	4.10000	0	4.1000	4.1000
1	4.10000	0	4.1000	4.1000

Summary: There is an effect of *UserID* on *Rating*. ($R^2 = 0.104415$ and $p=0$).

UserName

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
user_name	1192	124.46292	0.104415		
Error	271	0.00000	0.000000		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
\$@ \\[TO\$]- ,Sethu madhav,Akash Thakur,Burger Planet,Justice #1Q,Indrajyoti d.,Aditya Kumar,E.C.GEORGE	10	4.00000	0	4.0000	4.0000
& I Am Iron Man,Amazon Customer,Sayandeep Sarkar,sherin	1	4.60000	0	4.6000	4.6000
(sic),Harshit,Bharath N,Pulkit Malik,Akhtar Anwar,Amar Thapa,Chandan kumar,vijay	1	4.20000	0	4.2000	4.2000
Pushpendra Singh Patel & Mukul,Sauron,Amazon Customer,Bumble Bee,Naresh,Serena A Lyngdoh,Sohail Quazi	1	4.40000	0	4.4000	4.4000
123MovieTime,Ravneet S.,Akash,Mohd,Amaan,Pankaj,Sajan	1	4.70000	0	4.7000	4.7000
9640185788,Piyush Mishra,Vickie,Sakshi gupta,Srinivas,Lovraj V.,Rakshitha,Sandeep Kumar Yadav	1	4.00000	0	4.0000	4.0000
9848023076,Parimala,ajay kumar verma,ARSHAD,Hola,Anil V,kuppannan maruthachalam,Nikhil	1	4.20000	0	4.2000	4.2000
A H.,Amazon Customer,Amazon Customer,Gajendra Kumar sharma,Harpreet Kaur Sodhi,Shashi ranjan Kumar,Chandan Kumar,Vikas sharma	1	3.90000	0	3.9000	3.9000
A K Rai,Poojitha Subrahmanyam Naralasetti,Mugiwara,Arasu,Suraj M.,Vasudeva,Praveen Ramachandruni,Bhaskar Choudhuri	1	4.20000	0	4.2000	4.2000
A. Dubey,anandmohan,PREM,Daanish Daaivik,A,Amazon Customer,Jitendra padhi,Kritikalp	1	3.90000	0	3.9000	3.9000
A.D.PAUL & CO.,Suraj,PRATEEK KUMAR RAI,Swarn Gupta,kalyan,Esther,Krishna chaithanya,NILUM	1	4.20000	0	4.2000	4.2000
ajohn,Sonika sharma,Umadevi,tarun,venkatesh k c,Anumod,Olivia,Syed	1	4.50000	0	4.5000	4.5000
A.sh,JP,Junaid Yaseen,Maya sutar,Andrabir,praveen elangovan,Satpreet Singh,Amazon Customer	1	4.20000	0	4.2000	4.2000
Aadhityaa,Arif H.,Rajesh,priyanka chauhan,Sudhendu,Dr. Ngemu,Saranya,Customer	1	4.10000	0	4.1000	4.1000
Aadi Injal,A RAMU,S.S.Sohi,Shaifali M.,Mahesh Kumar,Shubham shukla,Rahul,Vimal Raj	1	4.50000	0	4.5000	4.5000
Aadil Fayaz Naik,Raj prajapati,vishalkumar patil,Mom Malakar,kannan,Srikanth Sivaraj,Addy Banik,Pawan	1	4.50000	0	4.5000	4.5000
Aaditya,Ajinkya Kumbhar,Sanchada,Shubham,Gaurav Bhatt,Aditi Shetty,Deepak,Himanshu	1	4.10000	0	4.1000	4.1000
Aakaash Ramchandani,ashok g.,Keyur suthar,Harshal Balasaheb Bhise,Anand Srivastava,Deepak S,customer,mahantesh	1	4.40000	0	4.4000	4.4000
Aam Adami for India,Colonel PSV Ramana,Tarique Hossain,Durratussharaf najmuddin,Athappan,Amazon Customer,Priyajit Samanta,Gopi	1	4.10000	0	4.1000	4.1000
Aashishnautiyal,Telangana venkatesh,Abbas Tirupur,Jacobasha Mysore,NAVNEET,Atul choudhary,MD Azhar,Prabu doss	1	3.80000	0	3.8000	3.8000
ABC user,Abhishek Kumar,Rajasekar K,Anil .P,NEEL SARSU,Akash pundir,Suman Jana,Saurabh kumar	1	3.90000	0	3.9000	3.9000
Abdul Gafur	1	5.00000	0	5.0000	5.0000
Abdul Moiz,Rupesh Patil,Devashis,Amruth Ramesh,ALOK NATH,Santosh Bharathan,Hemant W,Abner F.	1	4.60000	0	4.6000	4.6000
Abha Rani,V SRIKANTH,Bhagwan Khobragade,Suman Adhikary,Amit,Dominic X.,Srivastava rahul,Saleem	1	4.10000	0	4.1000	4.1000
Abhay Goyal,Apurva,Shilpa,Vishnu Narayanan,Kushagra S.,Rogin Cherian,Amazon Customer,Jay d.	2	4.10000	0	4.1000	4.1000
Abhay Gupta,vimal rastogi,Sughnesha,Prityush,Anzer Ahmed,A name I won't regret,Biby,Kayam Sayyed	1	4.10000	0	4.1000	4.1000
Abhay N.,Karan Arora,Bhavneet Singh,Deeptha Narayan,ANAND PRATAP,Vinay Savla,Parmod,Shail Alavani	1	4.50000	0	4.5000	4.5000
ABHAY SINGH,kapil,Amazon Customer,M.V.SUBBA RAJU,A.KANAKAYYA,Divyaj,Sachin Tiwari,Samriti garg	1	3.70000	0	3.7000	3.7000
Abhi_K,Amazon Customer,Swap,shivam,Abhinav Singh,Pulkit Bhardwaj,Minoy C Mathews,ADITYA SINGH	1	4.00000	0	4.0000	4.0000
Abhijit Mukherjee,Swetha vijay,Soumya,Srinath,Sarvesh Yadav,ashish kumar,ZOIC HEALTHCARE,Amazon Customer	1	4.40000	0	4.4000	4.4000
abhilash n.,Tk,Mayur,Ajay,himanshu kumar,Harikumar,Raja,Syammie	1	4.40000	0	4.4000	4.4000
Abhilash Sengupta,Shweta Sharma,Jennifer John,SaigalB4,shabnam,Priyabrata Praharaj,kamalhallan,Gulab Sanjeev Kumar	1	4.00000	0	4.0000	4.0000
Abhilasha,G4N,Dr. Gandharav Mehta,Nimai C.,HASEENA,Unknown,Sri Prasath,Nida parveen	1	4.40000	0	4.4000	4.4000
Abhiram Ganesh,Amazon Customer,Vikash,Rohit,Zakaria Ahmed,Vihar,Amazon Customer,M.bramheswar	1	4.30000	0	4.3000	4.3000
Abhinir SHANMUGANANDA RAMAN Sriiti Kundu sunnv,Asif Chaudhary,Sandip savaratkar,Aman Kumar,raiesh natef	1	4.10000	0	4.1000	4.1000

Summary: There is an effect of *UserName* on *Rating*. ($R^2= 0.104415$ and $p=0$).

Review ID

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
review_id	1192	124.46292	0.104415		
Error	271	0.00000	0.000000		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
R1AKJKNR8IBCV4,R2ZG9F0E80XAWQ,R39CL2CYR7L3N4E,R2ADNFHJ2I8A7L,R3VV8VK7HOOVQ5,RXGGE3BUDZOWO	1	4.10000	0	4.1000	4.1000
R1AUCEV80AWV4E,R3GAYL3CQ6GTJA,R3NN6TXOM5MD2S,R4Y4WXRNZKRWWP,RLQGX514ZJDHJ,RIZJA1XHKPH5M,R3C83NGWIRB2VT,R2WOO592FU73V7	1	4.30000	0	4.3000	4.3000
R1AY8EXPHPWDDR,R24503WUJGTMU,R27P97SD5T4MUX,R11RMBECT7059U,R3RA6FKE9W9XCM,R1EG7C09VFN8O,R18T3RD211CPKE,R1Q9BAGCE9GSVN	1	4.30000	0	4.3000	4.3000
R1B00RU35HI9O9,RHQJ68FGU8T7,RG5NSLD24104J,R3JPZAMX1OKWEU,RR77HDAK2955E,R9JOI89Z7HZSF,R3T0UGU3J4PDPY,R2FFZ4RWVYRVJO	1	3.80000	0	3.8000	3.8000
R1B1J4358749FT,R1BF5552AD8WBCT,R3M2ZIVIRKIFB,R4FCBH5KL92PJ,R2XO77R7XKY30O,R596LTGIB8WQ7,RKYSZQWYQIFB,R284MA5RVL06CF	1	3.50000	0	3.5000	3.5000
R1B2ONGGAFT9D,R1R2O42N4O151A,R13I84OJ7E8JO,RAA9R916JUJZ4K,R16HBPHELGF3G,R3C70FWNMP46X2,R2UM0LYKW0KF6N,R1N33Z7GWNWU3IOM	1	4.40000	0	4.4000	4.4000
R1B4DF1E33G25C,R1EU6CEYOZY18QE,R3BW81NGN6FTO4,R1LUI5Q85F9MSU,R1J90WSEGDNEMJ,R168W30T7B8E7,R3B8HIDI76JIAJ,R1V151J6/QXQU6	1	4.30000	0	4.3000	4.3000
R1B4X8ITOATQOC,R5WG9NNHM3YOOT,R3TAVI48RMGJ5,RILQMI111DYD1,R1R099R1LF5U9A,R26A4K18YPO7PL,R336HDD03JLVQ,R21Q39FHPMSQZ	1	4.20000	0	4.2000	4.2000
R1B9F9IRGMOO1R1R03J9EEFFHMF,RLXVHH8R1VC4Q,R2XA4OT3Q76L0T,R1HBCLTEUAY2M3,R11UP5K2R29X8M,R2NDNJ45Q59K19,RLNOCOCUPB3GBH	1	4.10000	0	4.1000	4.1000
R1B9VBHIA186VJ,R1R2D57CJWZ7Z9,R1Y1P1C1Q81QQCD,RWBH0HJW2I4J5,R1FWK8U95NC5ZM,R3QOFNCNOCXNKV,R151B4W3HCJDLT,RCELKVCUG2GR6IG	1	4.10000	0	4.1000	4.1000
R1B08IFG4REKS,R1FJKIHO545OW,R3H4BW2C4H8O,R3IH7SH5XDT1GT,R35QWAW83WL8H6,R25N2U90N2A5AS,R19AK3D7J3OE82,R210W115JCSRE	3	4.30000	0	4.3000	4.3000
R1B0DHURZIGIKV,RKQY8Y6UJ3Y4BT	1	4.40000	0	4.4000	4.4000
R1B6774NRS2DX,R1U4AG4C5P8D4G,R2WMQOC1KWG94P7,R2I2KA1OUGEH3L,R2Q7JZD5DQRVJN,R1B31T0G8VFWWH,R7K5AJJSYJMCJ,R1IMH92PEPVZ3Y	1	4.20000	0	4.2000	4.2000
R1BFQK13WVZQLM,R3H97FN1H50F7F,R1IY2IDRUJX5O5,R1NSUJPIJ5YGBU5,R3BZ3W2KH0X1DQ,R3GPO2WYK6AG,RCMFYGS1T27LR1D5QAMQV4O526T	4	4.00000	0	4.0000	4.0000
R1B1JTSWQ3XBG2,R3LXL5MYPNDLMZ,R1D2E4XNG6WLDJ,RTH4IISOENEMZB,R1PB8GQYZXIZDD,RSK7Z85B8OEUX,R3DVO5G5PIPHAU2,R3NZXDYJ5IGBU	1	3.90000	0	3.9000	3.9000
R1BLV0BTCRQ5AK,R1VLWMLK1T1KVO,R1FUE653QMAMHJ,R2CXQLQ9ZQRV83,R39XG6B5DPGVQLW,R1TXSINPJ3GGM,R2NOAGS9D9PY1MD,R10D7UXTTYZ2IC	1	4.20000	0	4.2000	4.2000
R1BP4L2H9HTFUP,R1P6BVEKXV62Z39,R2UPDB81N664P,R3KK4GT9345T3,RCFHMWU5BJJO,RDO7DACXMAJ8A,R3A6MEZL3LY66Z,R1E5IEKPAYAZ9	3	4.20000	0	4.2000	4.2000
R1BR8BOPWOGUJ,R3EATDE5V62Z39,R1BISP21J4W6Z7,R371Z2WNIHW68E,R1DEUJXRERZVJ9,R1C2TIDQCPNW4A,R1KEW0556IO34F,R2Z4EQ80846LQ	1	4.40000	0	4.4000	4.4000
R1BRNGXN1P25NVY,R1MLFHXY5FZHKJ,R3DJISY7QMMXW,R15O4U2YQ4QVIT,RNKC5XGEH5NV2,RZFZGYTF38C1H,R240P2TKGWDVW0,R2J902T88OZJ4E	1	4.40000	0	4.4000	4.4000
R1C2T5G7V4E6O0,R1EMLFPY5ZQRV0,R2013QLVZHQ28,R2E8GVX83ETPXA,R3ETN6781FL2R,R2IN91D1W1T43AK,R38K3MUGM9L7R,R2JL9F8CQQOMA	1	3.90000	0	3.9000	3.9000
R1CACIG4YFPOQZ,RHQJLZK65C2,R1LPNPTBRUFN7,R1QAZXMA5885V5,R2V6HFWRZFZ5M,R3HJ09H24L286,RP49KRKXSTA5OZ,R2C43NGT4Y5FZC	1	3.80000	0	3.8000	3.8000
R1CBMU35EIK5EY,R1ORUX7CJD554J,R2D54SFYTHO1Z,R3GQL7YKAFJMN,R3B6H5JPG134KN,RUGO4XHXKX95,R2Q1CYOUI5673,RXJ2W6X0X995Y	3	4.50000	0	4.5000	4.5000
R1CENZ3411CCP,R1G5PMTXKEMBLHP,RN1CXWCKGCGEGR,RXG29ZHDAZ1J,QROSSV6PIRUVQH,R2OCF7SV6VW9GT,R1LCV30N6RKEEM,R1GQGOJ2RHOS26	1	3.80000	0	3.8000	3.8000
R1CJOM811B1FV,RIDJYDGN13ET3,R3A4V58FT3PL9D,R1P01XZPNV0UL6,R2BWQXTRZLTAQ,R3TR86F911X3VY,R1UJ0DUANPA0JO,R2QLJH3/BPGEI7	1	3.90000	0	3.9000	3.9000
R1CJX9OC7AG6847,R3ATLUNJ84UHSV,RP4NUXUUVGLM425,R2U6XBEYS68MMM,R17I7512FB0I63,R3KY6XKRALU1R,R33ESF798DWOKS,R39ZXBVQLNEF80	1	3.80000	0	3.8000	3.8000
R1CK45PAMK1GB,R2F1WPD4OXI9,R1UTSUJY3RC5VJ,R1LJCG64HW5E2H,R1RQCLLYGGFIZ,R2VEEENK8T5ZM7,R2D17UBXTCQ6L,R34PTECLSINQ9QZ	1	3.90000	0	3.9000	3.9000
R1CKJXPF143T9U,R31WXP3Q2CBK7,R1S0555Y1UNXW,R1VLQJWXXHW7F39,R2YJ76N81TWW2J,R37Y52343YFGBE,RFMQL2EJ5MQ9,R1ZD2CRPESA0B8	1	4.20000	0	4.2000	4.2000
R1CYG59TJESUCN,R2PWNJ3J0UNB9,R17UGM8KBJ3DWY5,R3QBLT1N01FGR,RE335JY6R3R4,R1AOJATXAKRAZ,R2OGD0WEJ2KXSVM,R2OV6E3EKENWOK	2	4.40000	0	4.4000	4.4000
R1CZUTGQ7ZZKT,R2D605GY374HUI,R3MEVKNMG43JO84,R2FKWWTTH5551,R3CIRAX73RLH1,R25E99RLJYNS9,R33H1PA9J1Y88G,R1L2Q95DMF15Y	1	4.50000	0	4.5000	4.5000
R1D6BKF30HRM19,R3JOY2MQCFE9WV7,R246UEUHOY5RZ02,R1KMS5ZQENOG9R,R31Y2095TYNRQ,RLATLAKAZT04KF,R2XOSRQCS5GHA7O,R1G2VWWLFFIDIPM	1	4.30000	0	4.3000	4.3000
R1D9RWNUO500L2,R3UBUQTJL25WVJ,R413GR7DNRBK,R3JJBCLALK6GJ,R2B50IATBP6DL5,R248K0RTE9C15N,R26RTMICJZW5E5,R1DZ44NV5GNARJ	1	4.20000	0	4.2000	4.2000
R1DFQY125B48C,R2Z5WBUHY6BGDQ,R2K40LX6HLG4KR,R2TW5F8LSTBK3,R15WDMF0MUV956,RPQOQH0YCTUH5T,R3EGTJAA45WQD1,R3DIL16GDYVNB	1	4.00000	0	4.0000	4.0000
R1DID41V35COM8N,RD8R4CJUIQJ,R335FYRYQJQKR,R2CIVWHEHJUKM14,R27C642VQIDCPT,R3JUIDCLTBUPIUJ,R3YFVX06LEJWEGM,R3KYB80FHW4G4W4	1	3.50000	0	3.5000	3.5000
R1DIZ1V5B83FX3,R3RUTU4K7H8R7,R3B8Z1CJNXY814D,R33755VOCYTFY,R1EVL0456QZ6TD,R7QQTYZZGMMIN,R2FEJ2JWK585DQ,ROSY58MOT16058	1	4.20000	0	4.2000	4.2000
R1DQJ1BRKH1AIO,R35SPNPF2XD8Z,R564CINVRWLQ7,R38X9EM0L2O5AW,R2D89H45G6R8PU,R3CRC3DNW750LR,RK54KUTPX1X5Z,RF9V415MICUOM1	1	4.50000	0	4.5000	4.5000
R1DRVWDCPV58HM,R23KJQ1QCU568QY,R2KDJ8P856G9O3,R3H5VSQ9Z27R1,R37RU99JNIP3QE,R2BZ2LOL2SLVW5,R23PWOUIGJ73L1	1	4.00000	0	4.0000	4.0000

Summary: There is an effect of *ReviewID* on *Rating*. ($R^2 = 0.104415$ and $p=0$).

Review Title

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
review_title	1192	124.46292	0.104415		
Error	271	0.00000	0.000000		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level					
(after nearly one year use) Value for money TV, except for the sound.Spectacular Specification, Build Quality, and Performance					
UPDATE MARCH2021Decent for a USB 2.0 Device but don't expect anything above SBC *FALSE*aptX.Works very well, for Linux too.Using it to connect with ps5 controller on pc, no issues !.Not bad.Nice product with some cons.Overall good product ☺.Okay if [Updated] decent tws for under 1k.Sound clear,Bud very good Quality..Nothing.Budget Friendly.Amazing sound.Good product...					
3.Sturdy and Works Flawlessly.Excellent ☺.Really Good Product.Cord is very small.Plug size is bigger now, comes with 15A! Please change the plug size to 5Amps.Broken material given.Good product					
5 star.LED light is not there..Nice look.Better.Nice.Worthy product.Nice product.Noise very high improve that first priority					
7-8/10, Decent, good for day to day use.Good choice under budget of Rs2000.Average product.Budget friendly.Overall it's a good watch,Good product.Best in design, accuracy and looks fancy. A must buy for every person who is watch enthusiast.Having a great					
12V2A RouterUPS.Decent Product.Good quality,Effective and functional.Works with jio 12v 2.5A.Good product but not supported for my Wifi.Amazing product very helpful at times off power cut.Good one to buy					
600 W heating kettle with warmer & temp control, half coil heating element looks odd.Overall a Good Electric Kettle,Overall good.Good Multicooker within budget.Agaro esteem Multi kettle,Quality,Very nice product. Like it.♥ Nice one for hostellers. A must buy					
A1,AWESOME PRODUCT,Room heater2900watt need separate power connection.Not up to the mark.Probably the best build in this category.A good heater with some additional amazing features which make it a best buy.Not as expected.Nice product					
A beautiful experience in your budget. The volume controller was new for me but it works as a charm.USB speakers,Nice for the price,Worth the money.Good product.No disabale light feature.Please improve sound quality and more,Better at Price					
A budget Android TV,Wall Mount was missing from tv pack.Good,Good product but installation service is not good.Nice product ☺ ☺☺ am very satisfied,Good,Very good product in this price					
A conditional beast,Overall satisfied but Wow factor is no missing,Honest one which might help,Perfect one , You can buy					
A Good Braided Cable for Your Type C Device,Good quality product from ambrane,Super cable,As,Good quality,Good product,its good.Good quality for the price but one issue with my unit					
A good buy!,Good item fun to play , Brightness is good if used in proper light,very useful,Average,Good product at this price ☺,Nice.Good quality product.Very good product					
A good heater for tiny spaces.Good purchase.Best room heater in budget especially power saving.Handle to carry & a bit high stand would have been better additions to the product.Nice little room heater.Metal body with carbon heating element.Needs some					
A Good Product overall and value for Money.Am not happy this product... Not completed installation... Am very disappointed this installation...TV not able to connect via bluetooth,Picture quality,Good tv on this price.Warranty mentioned 2 years but one year only s					
A Good Product..Does the job.Overpriced Item.A bit over priced.Recommended,There is not fit to my tv so that why I return it.Nice product.Not worth 1					
A Good wired headset in budget,They Work Well and Are Reliable,Volume is not as expected.Good sound but too much of bass annoys.Boult Audio Bassbuds X1,Pretty good earphones, but....Nice Earphone , boult audio X1,Ok					
A little weak but over all good.Value for money!,Not working,Nyc product,Good Average quality product,Very good product,Affordable					
A must buy product for every house specially in North India.Good,Good.Amazing product, it's worth buying.Temperature of heating,Either HOT or COLD, not mixed water, Worthless item.Great product,Purpose is not fully served					
A must have addition to the kitchen.Easy to use,Superb,Fast and sharp blades..quick work.Good product,Quality of motor is good, just doubt on jar, it's not so much strong.Inalsa Bullet Chopper,Very handy and good chopper					
A nice & sturdy product..Assembly,nyc hardiyye,Good,Fits perfectly!!..Not suitable for 50inch and above ☺.Worth buying,Worth					
A perfect balance of price and performance.Great Section and above average mopping Good Buy					
A Quality Sound -Signature but leaves craving for a decent bass.Quite fragile too.Compared with Senn.HD 202 II & Sony MDR XB50AP..boAt 225 vs JBL CS100 vs Sennheisers cx180 DETAILED Comparison after 1 YEAR of USE.					
A seamless printing experience, with scope for improvements in set up.Good One,Very user friendly when compare with others,Best for home use.Good for home use.good printer,Good,Good for occasional printing. Extremely easy to use					
A travel companion.Small and thin wire.Good product product thanks usha.,Nice,Good,Good buy,Ok product,VIM					
A well designed product,Rich Quality Music But Comes with compromise on Features,Grip to the ear need to improve,Good,This is for new mobile with Bluetooth 5.0 v or apple phones - don't purchase for old phones,Good sound quality,Value for money,Good q					
A well priced product,Lenthy cord..Product is working as expected..Lenthy cable, works for car dashcam.Product is okay but they give 50rs for giving 5 stars..Misleading length (1.2m), rest fine.Good Product,Good					
Above average phone,Worth For The Money D,Okie,Phone is excellent,Purchased in good budget at 12k,it can fulfill basic needs in affordable price range.Nice,About features					
Absolutely loving it!,Excellent product,Not stic,Nice sticky note,good,Not up to the mark,Worth to sticky,GREAT...					
Absolutely worth the price.Best product on low value, definitely gofor this,Works the way it says,Economical. Very light. Quite sleek. No good robust packing,Good one!,The Best,As expected quality from a company like crucial. 4.5 Star Rating.Best in class ssd					
Adhesion,Good product.Does not stic,Nice sticky note,good,Not up to the mark,Worth to sticky,GREAT...					
Affordable product but poor design.Amazing,Just barely serves the purpose of the wireless keyboard and mouse,if your budget 1K - best of best,Good comfort,Very useful ☺,very compact easy to carry,it's really good					
All fine but the cord is too short.Good quality,Good quality go and buy....Stand nah! hota hai air ita hai.Good iron at this price.Awsome,There was one scratch on the surface which was hide under the sticker.Superb quality					

Number	Mean	Std Error	Lower 95%	Upper 95%
1	3.90000	0	3.9000	3.9000
1	4.30000	0	4.3000	4.3000
1	3.80000	0	3.8000	3.8000
1	4.40000	0	4.4000	4.4000
1	4.00000	0	4.0000	4.0000
4	4.30000	0	4.3000	4.3000
1	4.30000	0	4.3000	4.3000
1	4.20000	0	4.2000	4.2000
1	4.20000	0	4.2000	4.2000
1	4.10000	0	4.1000	4.1000
1	3.90000	0	3.9000	3.9000
1	4.30000	0	4.3000	4.3000
7	4.00000	0	4.0000	4.0000
1	4.00000	0	4.0000	4.0000
1	4.10000	0	4.1000	4.1000
1	4.30000	0	4.3000	4.3000
1	4.00000	0	4.0000	4.0000
1	3.90000	0	3.9000	3.9000
1	3.70000	0	3.7000	3.7000
1	4.00000	0	4.0000	4.0000
1	4.40000	0	4.4000	4.4000
1	4.20000	0	4.2000	4.2000
1	4.40000	0	4.4000	4.4000
1	4.10000	0	4.1000	4.1000
1	3.80000	0	3.8000	3.8000
1	3.90000	0	3.9000	3.9000
1	3.60000	0	3.6000	3.6000
3	4.00000	0	4.0000	4.0000
6	4.10000	0	4.1000	4.1000
1	4.50000	0	4.5000	4.5000
1	4.50000	0	4.5000	4.5000
1	4.40000	0	4.4000	4.4000
1	4.10000	0	4.1000	4.1000
1	4.30000	0	4.3000	4.3000

Summary: There is an effect of *ReviewTitle* on *Rating*. ($R^2= 0.104415$ and $p=0$).

Review Content

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
review_content	1210	124.46292	0.102862		
Error	253	0.00000	0.000000		
C. Total	1463	124.46292			

Means for Oneway Anova					
Level	Mean	Std Error	Lower 95%	Upper 95%	
1	4.60000	0	4.6000	4.6000	^
2	4.10000	0	4.1000	4.1000	
3	3.90000	0	3.9000	3.9000	
4	4.30000	0	4.3000	4.3000	
5	3.50000	0	3.5000	3.5000	
6	3.80000	0	3.8000	3.8000	
7	4.10000	0	4.1000	4.1000	
8	3.60000	0	3.6000	3.6000	
9	4.30000	0	4.3000	4.3000	
10	4.30000	0	4.3000	4.3000	
11	3.90000	0	3.9000	3.9000	
12	3.20000	0	3.2000	3.2000	
13	3.60000	0	3.6000	3.6000	
14	3.80000	0	3.8000	3.8000	
15	3.80000	0	3.8000	3.8000	
16	4.30000	0	4.3000	4.3000	
17	3.80000	0	3.8000	3.8000	
18	3.80000	0	3.8000	3.8000	
19	4.00000	0	4.0000	4.0000	
20	4.30000	0	4.3000	4.3000	
21	3.70000	0	3.7000	3.7000	
22	4.30000	0	4.3000	4.3000	
23	3.90000	0	3.9000	3.9000	
24	4.20000	0	4.2000	4.2000	
25	4.20000	0	4.2000	4.2000	
26	4.30000	0	4.3000	4.3000	
27	3.80000	0	3.8000	3.8000	
28	3.80000	0	3.8000	3.8000	
29	4.10000	0	4.1000	4.1000	
30	4.30000	0	4.3000	4.3000	
31	3.30000	0	3.3000	3.3000	
32	4.10000	0	4.1000	4.1000	
33	4.20000	0	4.2000	4.2000	
34	4.10000	0	4.1000	4.1000	

Summary: There is an effect of *ReviewContent* on *Rating*. ($R^2 = 0.104415$ and $p=0$).

Img Link

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
img_link	1410	124.44292	0.088257	233.8821	<.0001*
Error	53	0.02000	0.000377		
C. Total	1463	124.46292			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
https://images-na.ssl-images-amazon.com/images/W/WEBP_402378-T1/images/I/41d17oVYVeL_SX300_SY300_QL70_FMwebp.jpg	1	3.60000	0.01943	3.5610	3.6390
https://images-na.ssl-images-amazon.com/images/W/WEBP_402378-T1/images/I/41EK0QNFSUL_SX300_SY300_QL70_FMwebp.jpg	1	4.30000	0.01943	4.2610	4.3390
https://images-na.ssl-images-amazon.com/images/W/WEBP_402378-T2/images/I/51Y4ApH7emL_SX300_SY300_QL70_FMwebp.jpg	1	4.30000	0.01943	4.2610	4.3390
https://m.media-amazon.com/images/I/11Cusapw3L_SX300_SY300_QL70_FMwebp.jpg	1	4.30000	0.01943	4.2610	4.3390
https://m.media-amazon.com/images/I/21ci6bwtdL_SX300_SY300_QL70_FMwebp.jpg	1	4.00000	0.01943	3.9610	4.0390
https://m.media-amazon.com/images/I/21df1gnW1SL_SX300_SY300_QL70_ML2.jpg	1	4.20000	0.01943	4.1610	4.2390
https://m.media-amazon.com/images/I/21DUehBaRL_SX300_SY300_QL70_FMwebp.jpg	1	4.50000	0.01943	4.4610	4.5390
https://m.media-amazon.com/images/I/21DySoa1X+L_SX300_SY300_QL70_FMwebp.jpg	1	4.50000	0.01943	4.4610	4.5390
https://m.media-amazon.com/images/I/21e5ZrlutKS_SX300_SY300_QL70_ML2.jpg	1	4.00000	0.01943	3.9610	4.0390
https://m.media-amazon.com/images/I/21fnxCjCF1L_SX300_SY300_QL70_FMwebp.jpg	1	3.90000	0.01943	3.8610	3.9390
https://m.media-amazon.com/images/I/21luyw7JrrL_SX300_SY300_QL70_ML2.jpg	1	4.30000	0.01943	4.2610	4.3390
https://m.media-amazon.com/images/I/21N0SU36xXL_SX300_SY300_QL70_FMwebp.jpg	1	4.40000	0.01943	4.3610	4.4390
https://m.media-amazon.com/images/I/21ndlZtC7HL_SX300_SY300_QL70_FMwebp.jpg	1	4.20000	0.01943	4.1610	4.2390
https://m.media-amazon.com/images/I/21NKf-n3WdL_SX300_SY300_QL70_FMwebp.jpg	1	3.90000	0.01943	3.8610	3.9390
https://m.media-amazon.com/images/I/21nPIBlwF0L_SX300_SY300_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21o8KslQqRL_SX300_SY300_QL70_FMwebp.jpg	1	3.80000	0.01943	3.7610	3.8390
https://m.media-amazon.com/images/I/21OPu5-M3qL_SX300_SY300_QL70_FMwebp.jpg	1	3.50000	0.01943	3.4610	3.5390
https://m.media-amazon.com/images/I/21PB1kWWdL_SX300_SY300_QL70_FMwebp.jpg	1	3.80000	0.01943	3.7610	3.8390
https://m.media-amazon.com/images/I/21pqzUPpJNL_SX300_SY300_QL70_FMwebp.jpg	1	3.80000	0.01943	3.7610	3.8390
https://m.media-amazon.com/images/I/21psCtgM58L_SX300_SY300_QL70_FMwebp.jpg	1	4.20000	0.01943	4.1610	4.2390
https://m.media-amazon.com/images/I/21qdAZyu9xL_SX300_SY300_QL70_FMwebp.jpg	1	4.20000	0.01943	4.1610	4.2390
https://m.media-amazon.com/images/I/21qjQDQoKWL_SX300_SY300_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21rEkD8xxpL_SX300_SY300_QL70_FMwebp.jpg	1	4.00000	0.01943	3.9610	4.0390
https://m.media-amazon.com/images/I/21rFBH5lf2L_SX300_SY300_QL70_ML2.jpg	1	3.80000	0.01943	3.7610	3.8390
https://m.media-amazon.com/images/I/21rGO6HTUxL_SY445_SX342_QL70_FMwebp.jpg	1	4.40000	0.01943	4.3610	4.4390
https://m.media-amazon.com/images/I/21rxGo357FL_SY445_SX342_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21t8TMvuq6L_SX300_SY300_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21TQo2rZrbL_SX300_SY300_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21uJX5AqizL_SX300_SY300_QL70_FMwebp.jpg	1	4.50000	0.01943	4.4610	4.5390
https://m.media-amazon.com/images/I/21uXmiH98wL_SX300_SY300_QL70_ML2.jpg	1	4.40000	0.01943	4.3610	4.4390
https://m.media-amazon.com/images/I/21VBJRnsH6L_SX300_SY300_QL70_FMwebp.jpg	1	4.10000	0.01943	4.0610	4.1390
https://m.media-amazon.com/images/I/21x1gw1geuL_SX300_SY300_QL70_ML2.jpg	1	4.40000	0.01943	4.3610	4.4390
https://m.media-amazon.com/images/I/21yMfxVmNuL_SX300_SY300_QL70_ML2.jpg	1	4.50000	0.01943	4.4610	4.5390
https://m.media-amazon.com/images/I/21yP58IKDoL_SX300_SY300_QL70_FMwebp.jpg	1	3.20000	0.01943	3.1610	3.2390
https://m.media-amazon.com/images/I/21ywp-zfTJL_SY445_SX342_QL70_FMwebp.jpg	1	4.30000	0.01943	4.2610	4.3390

Summary: There is an effect of *ImgLink* on *Rating*. ($R^2 = 0.088257$ and $p < 0.0001$).

Product Link

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
product_link	1463	124.46292	0.085074		
Error	0	0.00000			
C. Total	1463	124.46292			

Means for Oneway Anova				
Level	Number	Mean	Std Error	Lo
https://www.amazon.in/7SEVEN-Control-YouTube-Netflix-Compatible/dp/B08RWC65Y/ref=sr_1_178?qid=1672909133&s=electronics&sr=1-178	1	3.90000	.	.
https://www.amazon.in/7SEVENTM-Bluetooth-Command-Compatible/dp/B09P8M18QM/ref=sr_1_485?qid=1672909149&s=electronics&sr=1-485	1	3.30000	.	.
https://www.amazon.in/7SEVENTM-Compatible-Android-Original-Replacement/dp/B09RQRZWX/ref=sr_1_291?qid=1672909139&s=electronics&sr=1-291	1	3.70000	.	.
https://www.amazon.in/7SEVENTM-Compatible-Replacement-Original-BN59-D1259E/dp/B09J8D5SFH/ref=sr_1_52?qid=1672909126&s=electronics&sr=1-52	1	3.60000	.	.
https://www.amazon.in/7SEVENTM-Universal-Replacement-Original-AK875095303/dp/B09MM6P76N/ref=sr_1_143?qid=1672909130&s=electronics&sr=1-143	1	4.20000	.	.
https://www.amazon.in/7SEVENTM-Universal-Replacement-Original-Television/dp/B09MMD1FDN/ref=sr_1_464?qid=1672909147&s=electronics&sr=1-464	1	3.90000	.	.
https://www.amazon.in/10W-Charger-Cable-Meter-Black/dp/B085CZ3SR1/ref=sr_1_164?qid=1672895791&s=electronics&sr=1-164	1	4.20000	.	.
https://www.amazon.in/10WERUN-Bluetooth-Smartwatch-Wireless-Fitness/dp/B09RF82SIQ/ref=sr_1_367?qid=1672895857&s=electronics&sr=1-367	1	4.10000	.	.
https://www.amazon.in/33W-SonicCharge-2.0-Charger-Combo/dp/B08RZ5K9YH/ref=sr_1_121?qid=1672895784&s=electronics&sr=1-121	1	4.30000	.	.
https://www.amazon.in/138-8-inches-Ultra-Android-L55M6-ES/dp/B09RWQ7YR6/ref=sr_1_499?qid=1672909149&s=electronics&sr=1-499	1	4.30000	.	.
https://www.amazon.in/682-Black-Original-Ink-Cartridge/dp/B08CYN5KY/ref=sr_1_122?qid=1672903001&s=computers&sr=1-122	1	4.20000	.	.
https://www.amazon.in/805-Black-Original-Ink-Cartridge/dp/B08CYP815D/ref=sr_1_62?qid=1672902997&s=computers&sr=1-62	1	4.00000	.	.
https://www.amazon.in/2000-Watt-Heater-White-HN-2500-India/dp/B08MTZ4T1D/ref=sr_1_165?qid=1672923598&s=kitchen&sr=1-165	1	4.50000	.	.
https://www.amazon.in/10000mAh-Li-Polymer-Power-Charging-Midnight/dp/B08HVL8QN3/ref=sr_1_25?qid=1672895755&s=electronics&sr=1-25	1	4.30000	.	.
https://www.amazon.in/20000mAh-Sandstone-Triple-Charging-Delivery/dp/B08HV83HL3/ref=sr_1_67?qid=1672895748&s=electronics&sr=1-6	1	4.30000	.	.
https://www.amazon.in/A400-Type-C-Cable-Meter-Black/dp/B07TZ65HSD/ref=sr_1_33?qid=1672909125&s=electronics&sr=1-33	1	4.30000	.	.
https://www.amazon.in/A400-Type-C-Cable-Meter-Black/dp/B07TZ65HSD/ref=sr_1_204?qid=1672895806&s=electronics&sr=1-204	1	4.30000	.	.
https://www.amazon.in/A400-Type-C-Cable-Meter-Black/dp/B07TZ65HSD/ref=sr_1_204?qid=1672903005&s=computers&sr=1-204	1	4.30000	.	.
https://www.amazon.in/Ace-1600-Watt-21-Litre-Stainless-Function/dp/B07RCGTZ4M/ref=sr_1_268?qid=1672923605&s=kitchen&sr=1-268	1	4.10000	.	.
https://www.amazon.in/Acer-Features-BlueLight-Flickerless-Comfortview/dp/B08L879J5H/ref=sr_1_135?qid=1672903001&s=computers&sr=1-135	1	4.20000	.	.
https://www.amazon.in/Acer-inches-Android-Smart-AR40AR2841FDL/dp/B08C9BW512/ref=sr_1_367?qid=1672909143&s=electronics&sr=1-367	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ready-Android-AR32AR2841HDFL/dp/B081YVCJ2Y/ref=sr_1_26?qid=1672909125&s=electronics&sr=1-26	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ready-Android-AR32AR2841HDSB/dp/B089959XF3/ref=sr_1_188?qid=1672909133&s=electronics&sr=1-188	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ready-AR32NSV53HD-Black/dp/B089XN953W/ref=sr_1_75?qid=1672909128&s=electronics&sr=1-75	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ultra-Android-AR43AR2851UDFL/dp/B081YV6JUL/ref=sr_1_146?qid=1672909131&s=electronics&sr=1-146	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ultra-Android-AR50AR2851UDFL/dp/B081YX72F/ref=sr_1_95?qid=1672909128&s=electronics&sr=1-95	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ultra-Android-AR55AR2851UDFL/dp/B081YZ9CB8/ref=sr_1_191?qid=1672909133&s=electronics&sr=1-191	1	4.30000	.	.
https://www.amazon.in/Acer-inches-Ultra-Android-AR55AR2851UDPRO/dp/B08997FBZT/ref=sr_1_394?qid=1672909144&s=electronics&sr=1-394	1	4.30000	.	.
https://www.amazon.in/ACTIVA-APSR-Approved-Ceiling-Warranty/dp/B07ZJND989/ref=sr_1_315?qid=1672923607&s=kitchen&sr=1-315	1	3.90000	.	.
https://www.amazon.in/Activa-Heat-Max-Watts-Heater-White/dp/B08DG6QDYD/ref=sr_1_167?qid=1672923598&s=kitchen&sr=1-167	1	4.10000	.	.
https://www.amazon.in/ACTIVA-Instant-SPEIAL-Warranty-Premium/dp/B07W4HTS8Q/ref=sr_1_245?qid=1672923603&s=kitchen&sr=1-245	1	3.80000	.	.
https://www.amazon.in/Activa-Nutri-Mixer-Grinder-Lasting/dp/B08DZWMGZ1/ref=sr_1_461?qid=1672923615&s=kitchen&sr=1-461	1	3.80000	.	.
https://www.amazon.in/Adapter-Projector-Computer-Laptop-Projectors/dp/B085194JFL/ref=sr_1_23?qid=1672909124&s=electronics&sr=1-23	1	3.70000	.	.
https://www.amazon.in/Adapter-Projector-Computer-Laptop-Projectors/dp/B085194JFL/ref=sr_1_149?qid=1672903002&s=computers&sr=1-149	1	3.70000	.	.

Summary: There is an effect of *ProductLink* on *Rating*. ($R^2 = 0.085074$ and $p < 0.0001$).

Data Preparation:

- No missing data points or outliers were found in the data
- No skewness correction was needed
- Category Unique Ordered
- I tried grouping the other variables, but they were not able to be grouped properly
- Changed Review ID to Geographical (Country/Region)
- Changed Actual price to number (whole)
- Changed Rating to Continuous

Model Testing:

Model Iteration	Features	Adj. R^2	RMSE
1	Category, Rating Count, Discounted Price, Actual Price	0.236491	0.25661
2	Rating, ProductID, UserID, ReviewID	1	3.973e-8

3	DiscountedPrice, ActualPrice, RatingCount	0.918665	0.08293
4	RatingCount, ActualPrice, DiscountPercentage	0.917859	0.08334
5	RatingCount, ActualPrice, ReviewContent	1	0

The best performing model was Model 3, which included Discounted Price, Actual Price, and Rating Count as our predictors.

Response rating

Validation: Validation

Singularity Details

Term	Details
actual_price[₹1,010]	=actual_price[₹1,109]=actual_price[₹1,111]=actual_price[₹1,130]=actual_...
rating_count[1,001]	=rating_count[1,017]=rating_count[1,026]=rating_count[1,030]=rating_c...

Effect Summary

Source	Logworth	PValue
rating_count	37.205	0.00000
actual_price	15.512	0.00000
discounted_price	0.072	0.84743

[Remove](#) [Add](#) [Edit](#) [Exclude](#) ☐ FDR

Summary of Fit

RSquare	0.992208
RSquare Adj	0.918665
Root Mean Square Error	0.08293
Mean of Response	4.096973
Observations (or Sum Wgts)	1024

This model had the highest Adjusted R^2 at 0.918665 and the best RMSE at 0.08293, showing that this is the best fit while at the same time, minimizing prediction error.

Findings:

1. Rating Count, Actual Price, and Discounted Price are the strongest predictors of Rating.
 - a. The Rating Count significantly affects the Rating, with higher Rating Counts leading to higher Ratings.
 - b. The Actual Price plays another significant role affecting the Rating, both going hand in hand on affecting the Rating.
2. Category, Rating Count, Discounted Price, Actual Price are the lowest predictors of Rating.
 - a. The Category significantly affected the Rating, causing the predictors to be lowered.
3. RatingCount, ActualPrice, ReviewContent, ProductID, UserID, ReviewID all had little to no impact on the Rating's predictors.
 - a. This suggest that Ratings were primarily based off of the Rating Count and the Actual Price.
 - b. Also shows that the ID's had little to no significance.

These findings provide valuable information on Ratings and how they work. Rating Counts (Along with the Product ID, User ID, Review ID) and Price (Actual Price, Discounted Price) affect the likelihood of purchasing the item, while the type (Category) affects the impact on what the object is being bought, and how often it is purchased. The Ratings can be used to determine what objects are being bought, how frequent they are purchased, and what causes people to purchase said object.

Comments:

Tableau Dashboard URL:

https://public.tableau.com/views/FinalProject_17420642913920/DiscountedPercentage_Rating?:language=en-US&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

Why I Selected These Measures:

Rating, Discount Percentage, Rating: These variables help Amazon understand different results on what or how discounts affect the Ratings, and how often a person would purchase the item.

The variables I selected all significantly impact ratings based on Amazon reviews. This table is designed to enable users to compare ratings among various options, illustrating how different configurations can influence user satisfaction. It's important to observe rating fluctuations that occur with variations in features, as well as to analyze how different brands rank in customer feedback for similar offerings. It is also important to note that the more a Rating Count there is,

the more likely a person is to look through the Rating's in a closer manure to ensure that they are buying something that they believe is worth it. Additionally, examining rating changes for specific configurations from a single brand provides valuable insight into brand-specific performance and user experience, allowing for a deeper understanding of the overall market as well as individual brand distinctions. Finally, the choice of Amazon was a conscious choice, as the use of Amazon is something that most people in Washington America have used. Amazon is one of the leading companies throughout the entire world, so to understand how they use Ratings, as well as understanding the customer was very interesting.