

# Use of Social Feedback to Improve Product and Service Quality

G. Vikram, F. J. Peter Kumar



**Abstract:** *The social media reviews are a source of customer experiences based on Product usage (the best and the worst) with details. This vast user generated content of product reviews are a source to derive meaningful insights. The existing literature review concludes that user generated content from social sites appeal and when innovative solutions applied help product initiatives effectively.*

*This research focus on the use of online social feedback including reviews and opinions for product initiatives especially on consumer items like apparels, kitchen appliances, home appliances and electronic products and its supported services. This helps product teams understand the potential available for product enhancements and quality improvements through customer experiences, which help brands to differentiate amongst competitors, dynamic environmental forces, global purchase power, etc.*

*The study identified industries using sampling techniques and respondents were from product development teams where social feedback like reviews, opinions and suggestions are valued and analyzed to address product users. The instrument-based responses were analyzed using SPSS to support the study objectives.*

*The findings from the analysis reveal that the social comments add significant value by contributing to product initiatives and product quality improvements. Additionally, based on consumer experiences, add value to service quality improvements, which enables for competitive advantage.*

**Keywords:** *Social Reviews for Product Quality Improvements, Quality Enhancements of products & services using reviews, Quality Initiatives using social feedbacks.*

## I. INTRODUCTION

In the digital business world, Social Media platforms offers the support for both consumers and companies to connect, collaborate and communicate at any time for directed objectives. Organizations are defaulted to maintain social profiles for better market focus & attention while Consumers are interested to share their product experiences, feedback, suggestions and opinions, actively on social media. This vital information about the product and/or services on social sites help the product team and quality managers to gain insights on product for enhancing the product and services offered related to the product lines.

Additionally, this Voice of Consumers on Social platforms provides tangible benefit of elevating the product reach to target market audience in less time saving promotion efforts and supports purchase decisions at zero cost of marketing and advertisement.

Abrahams et al. (2013) state that the customer shared feedback information about the products and services in the social media indicates the customer preferences plus view on the product and the services quality and has good value for business needs. Cuiqing Jiang et al. (2017) study highlight that: reviews added to the social media are candid feedbacks from consumers and are a vital source of information for product quality initiatives. The study exposes that the product related reviews are grouped under three areas namely, the defect-related reviews, the comparison-related reviews and idea-related reviews corresponding to aspects of product quality and production system improvement.

## Study Objectives

In the current scenario of business environment, quality has become one of the critical factor in differentiating products and the services offered in terms of valued features, highly reliable, good customer care and better performance. In the consumer sector, quality plays a vital role for both products and services, which helps to manage the market shares and provide competitive advantage. The study focus on the use of social reviews to enhance product and services quality using suitable model for consumer products like apparels, home appliances, kitchen products, electronic products and the supported services.

The rest of the paper organized as follows. Section 2 covers the literature review of the study related areas. Section 3 presents a model for quality reviews implementation supporting product initiatives. In Section 4, presents the study details in specific industries and the data analysis performed. The Section 5 details the findings based on the analysis and the results. The final section discuss the managerial implications with concluding remarks and discuss the future directions for research.

## II. LITERATURE REVIEW

### Social Media Reviews

The act of referring the social channels and forums about the product related reviews for purchase decision-making has become act for most consumers in current scenario. This act of consumers make the product owners to pay attention to the online reviews as the details shared acts as a source of risk or potential opportunity for business needs (Anderson & Magruder, 2012; Li & Hitt, 2010).

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A study by A.H. Huang et al. (2015) on reviews indicate that the review information, quantitative details and depth of information are factors contributing to the review usage for business need. This also state the rating of the review are an indication to the usefulness. The study also display that precise information (rather than a lengthy message) in a review makes a better impact to the perceived value of the product.

## Reviews for Product or Service Quality Enhancements

Based on review of literatures, the Product Quality has eight dimensions as suggested by David Garvin (1984, 1987) and the Service quality has five dimensions as suggested by Parasuraman, Berry & Zeithaml (1991, 1994). The use of social media tools to gather customers input and experiences to enhance the quality and design of their products are a recent trend identified in companies (Allan, 2005).

The development of appropriate superior products and services by companies are based on the social reviews gathered from consumers and is a great advantage for companies (Kristensson et al., 2008). Social media acts as a medium to gather outside view on product, its value and enables collaboration to innovate new products (Idota et al., 2014; 2015a; 2015b, Mount & Martinez, 2014). Marion et al. (2014) study reveals that companies use Social media to listen to consumers and use the inputs to design appropriate solution and offer variety.

Based on the work by Berendsen, G. et al. (2015), social media is identified as an easy to use tool to handle customer communication for quality improvements, new / incremental product development processes across stages especially at large numbers using segmented forums depending on organization goals and needs.

The social media platform and tools act as a real system, which help managers in gathering customer's views, and promote them to share their feedback with regard to the service being offered. Bharadwaj, Nevin & Wallman (2012)

study reveals that listening to customers and their feedbacks can bring an impact on a company's creativity level and enhance the delivery of services. The organizations now are empowered to leverage the technology and available platforms to collaborate with their customers anytime, anywhere in new service development unlike the traditional approach (Sigala 2012).

Additionally, studies reveal that customers act as an important source of information provider for product and service quality enhancements. In quality management literature, customer transactions are a source of information to understand the different perspectives such as the customers view about the services, its quality, the product quality and the price (Parasuraman et al. 1991, Zeithaml et al. 1996). The discussion shows that Product and Service Quality is highly influenced by consumer experiences where companies which can fulfill the consumer needs, expectations, and goals, can lead to maximized business value and sales growth.

## III. THEORITICAL FRAMEWORK

The literature reviewed and the source of information gathered were used as a foundation to establish a framework supporting this study as exhibited in Figure 1.

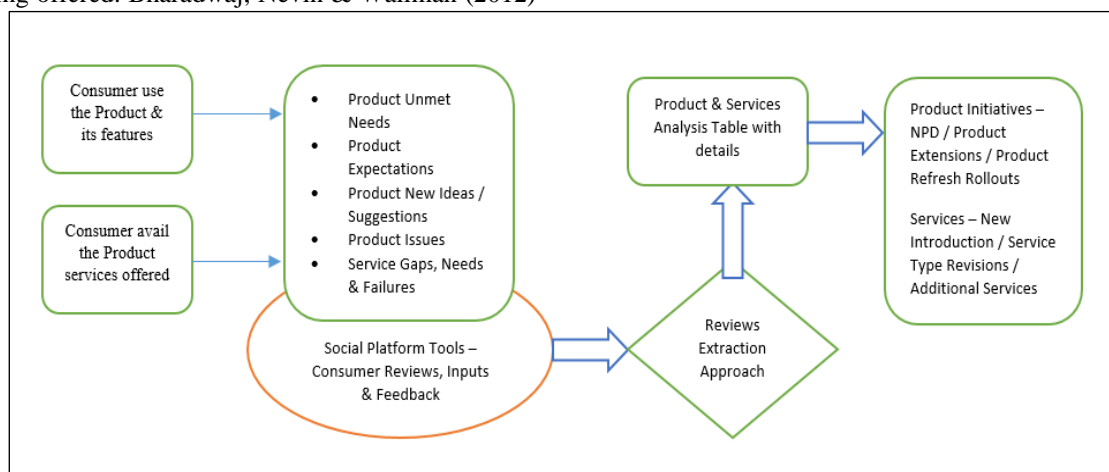
Based on the framework, the hypothesis identified as part of the study objectives were:

**H1:** The social helpful inputs and opinions influence the new product increments based on customer preferences

**H2:** The social helpful suggestions comments affect the product lines supporting market needs

**H3:** The product experience based reviews and feedbacks influence the product quality

**H4:** Based on user experiences, the feedbacks influence the service quality supporting the product lines



\*source - computed by researcher

Figure 1 Conceptual Framework on Social Reviews for Product Initiatives

## IV. STUDY METHODOLOGY & DATA ANALYSIS

### Sample and procedure

The Industries in Coimbatore and Tiruppur districts are mostly manufacturers of consumer directed products, which are critical-to-function products. Considering the socio-economic condition and the category of products developed and sold to consumers, the fit industries identified

for the research study. The sampling frame constitutes the industries belonging to apparels covering Men's, Women's and kids wear, kitchen appliances including Mixers, wet grinders, Juicer Mixer and electronic goods covering induction cooktop, electric cooker with supported services, Home appliance equipment's with servicing facilities.

The industries sales channels include company ecommerce portal, digital partners like amazon, flipkart and popular sale channels like eBay, Snapdeal, etc. The channels also offer the consumers to write reviews and flexibility for consumers to share reviews.

The sampling technique used for selection of Industries is a mix of probability and non-probability sampling namely Stratified, Purposive and Snowball sampling. An instrument was prepared using the cognitive variables identified and used to gather details on the products from Social Tools Analyst, Product Teams, Quality Engineers and Managers.

**Measure**

The instrument consists of four sections: the first section covered the features of social review on products & services, second section covered the product increments or extensions features, third section covered the features of product quality and the fourth section covered the features of service quality.

The sample size calculated as below:

Sample size 'N' =  $(ZS/e)^2$

Z = 95% confidence level = 1.96 (standard value)

S = SD value of the factor = 0.804

e = Acceptable Error [5 %] = 0.05

Sample size (N) = **630.34**

The data was collected by using the instrument based interview schedule and are found supportive for data analysis. Therefore, the details of the analysis and the findings are based on the 630 responses. The data collection method was helpful to know the impact of review on the products & services and the views from the different product teams.

**Data Analysis**

Reliability Analysis - Lee Cronbach (1951) proposed the concept of Measurement of Instrument Reliability. Cronbach's 'α' is the coefficient of reliability. It's used as a measure of the internal consistency of the factors identified for the study. According to his proposition, the Cronbach's Alpha value shows higher level of reliability and the value of above 0.7 is an acceptable reliability coefficient for undergoing scale.

The Table 4.1 displays the details of the reliability statistics for the factors as per the analysis completed.

**Table 4.1 Internal Consistency of the factors**

Areas of Study	No. of Items	Cronbach Alpha
Social Review Comments	6	0.89
Product Increments / Extensions	11	0.74
Product Quality	8	0.91
Services Quality	10	0.93

The Kaiser-Meyer-Olkin (KMO) measure is used to examine the appropriateness of factor analysis. The KMO test value between 0.5 and 1.0 indicate that the factors are appropriate (Kaiser, 1974) for further data analysis. The Table 4.2 displays the details of the analysis completed and found suitable for the study.

**Table 4.2 Measure of Sampling Adequacy**

KMO Measure of Sampling Adequacy		.914
Bartlett's Test of Sphericity	Approx. Chi - Square	5263.218
	Df	1176
	Sig.	.000

The value 0.914 indicates it is a good fit for analysis with significance.

The below table 4.3 shows the demographic profile of the respondents. Among 630 respondents, 73.9 percentage of respondents were Male and 26.1 percentage belong to Female. The major respondents were from apparels [35.2%] and kitchen appliances [33.4%] providing details on the impact of social reviews on products across the industry identified.

The top three of the responses population were from product social tools analyst [21.6%], product team leads [15.1%] and quality engineers [27.6%] in this research. The respondents were from product management area providing details on the impact of social reviews on products across the industry identified.

The respondent's experiences cover a minimum of 03 years and maximum of 14 years whose expertise help with necessary industrial details supporting the study.

**Table 4.3 Demographic analysis of the Respondents Participated**

RESPONDENT CHARACTERISTICS	SUB-PROFILE	COUNT	PERCENT [%]
GENDER	Male	466	73.9
	FEMALE	165	26.1
QUALIFICATION	DIPLOMA HOLDER	123	19.5
	GRADUATE	227	36.0
	POST GRADUATE	216	34.2

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	OTHER QUALIFICATIONS	65	10.3
YEARS OF EXPERIENCE	03-05	171	27.1
	06-08	133	21.1
	09-11	213	33.8
	12-14	114	18.1
DESIGNATION	PRODUCT ENGINEER	70	11.1
	ANALYST [SOCIALTOOLS]	136	21.6
	PRODUCT TEAM LEAD	95	15.1
	QUALITY ENGG / LEAD	174	27.6
	PRODUCT OWNER	112	17.7
	OPERATIONS MANAGER	44	7.0

The result indicate that the respondents are qualified Graduates and post graduates which indicates higher penetration of respondents and are capable to analyze the social reviews and its impact on the product & services offered.

The study hypothesis were tested using regression in SPSS. The hypotheses used to test the relationship between the dependent variable and the independent variable. The independent variable was the social reviews & feedback for the products / Services, whereas the dependent variable was the product extensions, Product Quality and

Service Quality. The test were performed with level of significant was at 0.05.

The Table 4.4 provides the details of the Hypothesis and is found that H1, H2, H3 and H4 are supported. This indicates that the relationship between the dependent variable and the independent variable are positively impacted. The Standardized regression Coefficient in the regression equation can be used to determine the independent variables importance as needed.

**Table 4.4 Summary of the Hypothesis Testing**

Hypot hesis**	$\beta$	t- statistics	R Value	R <sup>2</sup>	Adjusted R <sup>2</sup>
H1	0.898	8.609	.898	.806	.806
H2	0.888	7.967	.888	.788	.787
H3	0.941	7.278	.941	.866	.866
H4	0.934	6.335	.931	.873	.872

$\beta$  - Standardized Coefficients    \*\* - p-value significant

### V. FINDINGS

The research study had contributed to major findings as below:

- The social reviews significantly contribute and influence the product increments and help extend the product lines in Apparels, Appliances and Electronic products.
  - Providing the expected and demanded features with good performance will enhance reliability of the product and increased value for consumers
- Product Quality is another important dimension where consumer pay attention and prioritize it for purchase decisions.
  - The study reveals that social reviews on product quality help to improve the product attributes for better sales and product success in Apparels, Appliances and Electronic products industry.

- The quality aspects of the product helps to re-position the product to target segments for better sales.

- The study highlighted that social inputs can help to evaluate the services offered using supported technique namely Critical Incident Technique (CIT), Failure Analysis. This help understand the Gaps experienced by consumer plus any open opportunities for new services launch. This helps the Companies to improve the quality of services offered.
- The uniqueness of the services offered stands as a competitive advantage for brand success and enables for increased attention from consumer market. The use of User Journey Mapping, User Experience and Service Blueprinting help design effective services with expected outcomes.



## VI. MANAGERIAL IMPLICATIONS

Social media sites are not only a discussion forum but deserves strategic importance. Our study has also revealed that social media reviews and inputs were used to gather consumer views on products and their services. A social product strategy as part of a business objective supporting the product lines help to remain relevant in satisfying consumers in terms of quality initiatives and new product development strategies. This strategy help companies enhance product quality; bring more innovative solutions with confidence to support brand success.

## VII. CONCLUSION

The study analysis clearly illustrated that online social reviews (with details and data) are consumer experiences, which contribute to understand the gaps and opportunities for better product and services management. The analysis reveals that the user-generated contents from social sites help for product development strategies and product quality improvements.

This enables organization to understand the unmet needs of consumers, develop products with specific attributes suitable to consumer, and launch with confidence. This helps brand re-position products. The analysis of the social inputs and feedback on services contribute to service quality improvements and align for new consumer needs.

## VIII. FUTURE RESEARCH

Research can focus on different industries to explore the social media usage and potential. This study has been a representative one, longitudinal studies can also help to gain more insights. Comparative studies with products in international markets can be revealing for the brands to engage in additional market segments for better sales.

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