

UNRAVELING THE MODERATING EFFECTS OF FINANCIAL POSITION, RESEARCH AND DEVELOPMENT, ADVERTISING, AND CUSTOMER PERCEPTION ON NEXUS OF PRODUCT INNOVATION AND FMCG SALES

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ABSTRACT

This study examines the relationship between product innovation and the sales volume of companies and digs out the impact of product innovation factors on the sales volume of companies. Data was collected from general managers, operation managers, sales managers, marketing managers, and owners of the companies situated in Multan, Lahore, Khanewal, and Bahawalpur of four types of industries, like beverages, FMCG, textiles, and manufacturing, by using a convenience sampling technique. A total of one hundred and ten questionnaires were considered useable for regression analysis. Many companies promote their products by adopting product innovation with the help of customer perception, advertising, research and development, and their financial position with marketing exertions. Significant factors from the technique were conducted to see whether these have a positive or negative relationship with the number of significant factors that can be responsible for increasing the companies' sales. The results show that product innovation under different factors (moderator variables) significantly increases the sales volume of the companies. So, to increase sales through product innovation, certain measures need to be adopted in these companies in the future.

Keywords: Product Innovation, Customer Perception, Advertising, Research and Development, Financial Position, Sales Volume.

INTRODUCTION

Product innovation is the opportunity to expand the scope of the product selection of any firm that is growing its sales volume and increasing its financial position of the companies. A lot of businesses appear not to get documented significantly good results on account of depressed financial position. Therefore, it is very important to understand the point that prerequisites provide labor and

birth to help innovation or even invention, in addition to having a corporation avoid having from the marketplace, it offers to help innovate. New product innovation/service development is important in a competing marketplace like that associated with Pakistan. New product innovation/service development is important in a competing marketplace like that associated with Pakistan. Companies of

beverages, FMCGs, textile, and manufacturing industries form a significant portion of the production segment of the economy. These sectors require product innovation to change the perception of customers and to enhance the profitability of the companies. It was noted, that product innovation or service innovation has become observed as the blood regarding any kind of firm. The reason is that new possibilities since they arise usually a means to escalating profits. This means good with a successful goods invention allows the item to create substantial revenue just before powerful competition advances. Each organization should shift when it comes to product or service innovation simply because the invention of goods shapes the company's near future. Alternative product or service must be designed to maintain or construct sales. The buyers desire new products in addition to organizations can do their best to provide these people. Developing along managing product development is vital to an organization's success along with development. Even though various organizational ways of product administration are most likely the talk about widespread task features, along with choices required to guidebook a product or service using their living period. Product professionals coordinate endeavors and grow the actual ideal center the product innovation in each promotion to market.

Marketing and advertising professionals focus on products in the distinct marketplace. Some sort of opportunity workforce is oftentimes employed to produce services. Associates of the opportunity workforce originate from the different well-designed regions in the corporation and still have the authority to perform options. Product development preparation calls for the actual coordination of well-designed parts like study along with advancement, manufacturing along with design, study along with money, and human resources along with advertising and marketing.

The innovation connected with invention generally gives attention to the improvement as well as effective modification associated with innovation straight into usable goods or

perhaps methods that can be regarded worthy of becoming launched in any marketplace or perhaps applied inside of the project (Frenz and Oughton, 2005). This can be in connection with the heterogeneity associated with resources as well as effects associated with development, which makes it hard to spot as well as explanations and it is in part answerable for regularly contradictory results connected with the study of innovation (Dosi, 1988). The pioneer technologies as well as improvements are generally connected with their singularities, innovation historians make it a point to be able to type clear the particular big difference between the two. It might be discussed that although innovation may be necessary for some improvements, it's only if the technology can be taken advantage of in a commercial sense that it brings about innovation. Another, though a smaller amount popular approach of identifying invention coming from creations has become able to claim that innovation pertains to new concepts generally while inventions are concepts that have been brand-new in just a certain situation (Van de Ven et al., 1989; Damanpour & Evan, 1984 and Damanpour, 1987).

From one more perspective, a difference exists between innovation and research & development, where the research & development may be indicated to be attentive in the responsibility regarding means in the research plus the modification about the philosophies intended at your progress regarding profitable possible products and techniques whereas innovation is concerned having subsequent product or service progress process. Product innovation is abundant for the progress of sales and in the existence of the above-stated sectors of Pakistan and it likewise faces a lot of problems.

Significance of the Study

The present research is founded on cause along with the outcome of product innovation in the Beverages, FMCG, Textile, and Manufacturing sectors of Pakistan. This study will be important concerning the above-mentioned areas of these industries as they could know the actual aspects which can be producing product or service product

innovation and the impact of its moderating variables which usually increase the sale volume of the company. The actual turbulent surroundings through which many businesses go towards product or service innovation as well as analyze their efficiency and training. That research may help the above-mentioned market sectors to identify the issues active in the product or service creativity and in addition, indicate the actual long-term way to these people. It may support companies to grow their sales volume, revenue as well as industry share. It is in the light of these problems that this research seeks to bring to the fore the implication of product innovation on the overall sales growth of institutions.

LITERATURE REVIEW

This study examines especially the fast-moving consumer goods sector of Pakistan; although many industries might use the item to the base with their investigation perform. This existing literature examines Product Innovation contemplating in addition would likely develop this suggestion through which Product Innovation may help improve this product sales in the Companies. The literature also likely assists the readers in summarizing in addition to the incredible importance of Product Innovation and different methods connected with very well performance in the companies.

Innovation is an economical notion rather than engineering just one. To work with the words connected with Kline and Rosenberg (1986), “successful effects within creativity involve the particular working connected with a couple of gauntlets; the particular commercial along with the technical”. The actual dual character connected with product innovation can be emphasized by Tushman and O'Reilly (1997). This individual explains product innovation regarding the arrangements, people, rewards, and culture which (1) market imagination and product promotion creativity the chance to merge thoughts within the exclusive approach or help make unconventional links among thoughts and (2) assist in setup, i.e., rotating the thought right into a useful product, services as well as technique of function. For example, innovation is usually utilized (Evans

2004). According to that checkout, innovation could be surely defined as, “the particular age group of a new thought and it is set up right into a new idea of product innovation, practice, as well as services, producing the particular energetic expansion on the national economy along with the increase connected with career together with into a development connected with pure revenue to the impressive business enterprise” (Urabe 1988).

The major product innovation is usually a product as their planned utilize, functionality qualities, features, design and style houses, or perhaps the utilization of supplies in addition to components may differ drastically in comparison with formerly constructed items. Such enhancements may contain substantially completely new engineering or perhaps can be determined by mixing the existing manufacturing with completely new places. Incremental product innovation is surely an existing product whose performance may be significantly boosted or improved. This again may have to take two forms. A straightforward product may be improved by using higher functionality components or perhaps materials or a complex item that has several combined technical sub-systems may be improved by simply partial improvements to among the subsystems.

In businesses, the companies that have to develop new products are expected to exhibit a few high levels associated with creativity as well as innovativeness which is consistent with their buyer perception associated with equally their merchandise as well as organization photograph. Customer's conception of an organization as well as merchandise may impact investing behaviour. Perception is a method in which someone prefers, arranges, as well as interprets stimuli in a meaningful as well as coherent image of the entire world. For internet marketers, consumers' perceptions are generally a lot more important as compared to their knowledge of goal truth. Moreover, considering that persons produce selections as well as carry behaviour based on exactly what they comprehend to be authentic, it truly is essential that entrepreneurs understand the entire notion associated with conception as well as similar notions a lot

more quickly what elements impact consumers to purchase (Schiffman, and Kanuk, 2007; Alves et al., 2005) this diffusion associated with innovative developments.

The actual diffusion procedure is concerned with the way innovations are distributed, that is, where they usually are assimilated just by an industry (Schiffman and Kanuk, 2009). Many items that might be fresh would not have the same opportunities for consumer acceptance. While you will discover no accurate formulas by which online marketers can certainly assess the latest product's very likely acceptance, diffusion analysts include acknowledged five qualities that manage to impact consumer acceptance involving the advantages of services: general advantage; complexity; compatibility; trial run capacity; in addition to observing capacity (Rogers, 2003). The very idea of adopters' categories consists of any category structure that implies the place where a consumer stands about various other customers in terms of the period (or when they undertake the latest product). A few adopter categories are likely to be mentioned within the diffusion literary works: innovators, earlier adopters, earlier the greater part, outstanding the greater part, in addition to laggards (Schiffman and Kanuk, 2009).

Advertising is efficient and requires boosters that do not incur hazards related to product advancement (Laurent et al., 1993). Advertising can be easy to carry out, in addition to generally having fast in addition to large effects on product sales quantities. As a result, it is not amazing that this general reveal regarding Advertising throughout companies' marketing costs is constantly improving. In contrast, product sales' offers rarely include prolonged effects in product sales volume, which often return to pre-promotion quantities right after a couple of weeks or even many. As a result, the success of rousing long-run increase in addition to earnings for the advertising brand name is questioned (Kopalle, Mela, & Marsh, 1999). What are the long-run fiscal effects, if just about any, of the two various marketing actions? Moreover, it is an arduous problem since there are various metrics regarding fiscal efficiency, which includes income (top-line performance), income (bottom-line performance) in addition

to firm value (performance throughout individual markets).

In addition, it is hard to distinguish between your short-run as well as the long-run side effects regarding advertising and marketing steps. Exploration in this region features concentrated largely on the profit and revenue side effects regarding product or service creativity, for example, displaying his or her gains inside the moving consumer things marketplace (Bayus et al. 2003). When it comes to individual results, can be of which new-product declarations make tiny excess stock-market returns for some time (Chaney, et al., 1993) more excess returns could be made in the event the brand-new product or service will be introduced out there (Kelm et al. 1995). Regarding sale/revenue promotions, their results often affect revenues and are often beneficial, at the same time short-lived, while companies' revenue in terms of profit result is normally unfavourable (Abraham and Lodish, 1989). We all have no idea if buyers interact with firms' campaign strategies, and do not perform exactly how impulse, if found, even compares to the results regarding new-product introductions. Within this review, most of us compare the results regarding product or service creativity introductions and advertising campaigns about the top-line, bottom-line, and individual functionality of the agency. We all choose the automobile industry as a good example, of its economic importance and its reliance on each product or service creativity introductions and advertising campaign.

Industrial markets have generally been characterized by improvements in opposition as well as expanding requirements for differentiation (Neu and Brown, 2005). that as outlined by Resource Advantage (RA) theory creates innovative actions any reasonable answer (Hunt, 2013). In any event, innovation qualified prospects "to the particular breakthrough, design, or even building involving assets assortments which permit the particular finding corporation to be able to correctly and/or properly create worth adding market offerings". Simply by occupying effective market roles as well as serving buyers who are worth those market choices,

corporations get aggressive positive aspects and excellent performance (Hunt, 2013). Manufacturing industries have always been dependent on getting the most recent solutions for their contemporary market. Thus, solution innovation is an efficient source of their competing advantage. By differentiating themselves from the opposition, corporations can comprehend an amount of top quality (Baines et al. 2009). Rewarding customers requires superiority allows the firms to demand increased costs about current market offerings. When developing services, industrial corporations innovate in common markets. Using their goods-based enterprise model, industrial corporations usually contain the essential current market knowledge and understand how to speak with customers (McNally et al., 2010), which often guarantees productivity and success as soon as running available services to targeted current market sectors. On such basis as these types of quarrels and following extant literary works (Bowers 1989; Calantone et al., 2010), we all count on an optimistic influence of solution the product innovation with income growth. Moreover, according to earlier studies, we all count on the solution of product innovation as an important driver of organizational success. Although the progress of services can be expensive (e.g., important investments in machinery) and risky, product innovation is already proven to make above-average income/profit (Artz et al., 2010). Especially, as soon as the new products are released; they

will deal with very little primary opposition, which often produces increased solution margins. Against this background, we all suggest product innovation as a driver of the two, income and success growth.

Such as product innovations, and program innovations likewise might put it add to be able to commercial industries in market offerings (Gebauer et al., 2011). Focused primarily on fulfilling clients will need additional total program innovations to generate positive aspects regarding recent as well as new customers. Helping this watch, RA idea suggests that getting together with purchaser needs as well as desires will be key to be able to competitiveness (Hunt, 2013). Within commercial markets, where quite a few vendors find it progressively more complicated to be able to distinguish their goods successfully via competitors' offerings, program innovations offer a significant method to obtain aggressive advantages in which the end might lead to much better personal efficiency (Aas & Pedersen, 2011; Cainelli et al., 2004). No matter what this market looked at several scientific studies suggest that product innovation can certainly positively impact the firm's efficiency and sales (Cheng & Krumwiede, 2012; Dotzel et al., 2013).

Conceptual constructed framework

The conceptual constructed framework of this investigation can be supported graphically in the figure given below:

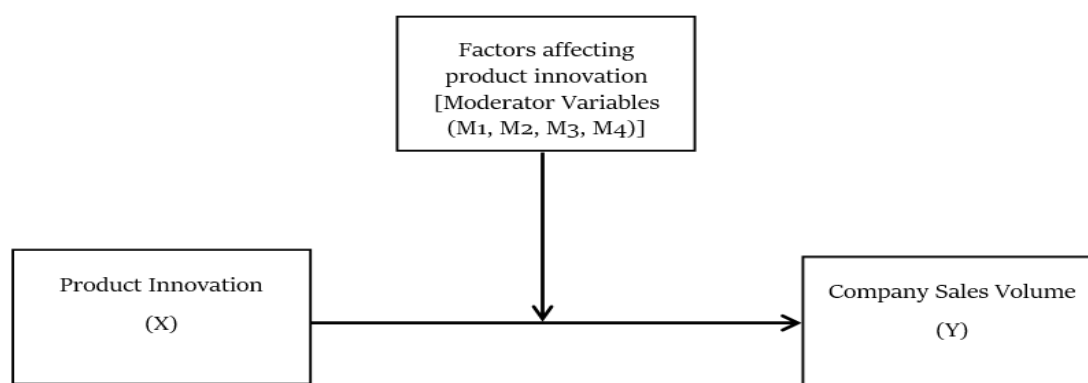


Figure 1: Framework Diagram

Abbreviation: M1=Customer Perception, Development, M4=Financial Position of the
M2=Advertisement, M3=Research & Company

Hypotheses Development

The following hypothesis has been formulated after a literature review and making a conceptual framework for this research:

H₁: The effect of product innovation on sales volume is dependent on customer perception.

H₂: The effect of product innovation on sales volume is dependent on the Advertisement.

H₃: The effect of product innovation on sales volume is dependent on Research & Development.

H₄: The effect of product innovation on sales volume is dependent on the financial position of the company.

DATA AND METHODOLOGY

The data was collected through questionnaires from four industries beverages, FMCG, textile, manufacturing, and some other industries that were carried out by the different companies from cities Lahore, Multan, Khanewal, and Bahawalpur.

A questionnaire was distributed to owners of the companies, general managers, H.R. managers, financial managers, marketing managers, sales managers, and employees of the companies. We all get this information with their self-confidence so that they provide the necessary data according to our questionnaire. In this study, we used the convenient sampling technique to collect the data by using a structured questionnaire that was closed-ended. Questionnaires were distributed through email, by hand, and Google survey forum.

We employed correlation, linear regression model, and moderation methods. The simple regression equation will be as follows:

$$y = \beta_0 + \beta_1 X + e \quad \dots\dots\dots (1)$$

If our regression model is assumed to be statistically significant and then we involve the third variable M_i that is moderator variable M then our moderation effect of M_i will be modeled in the form of a regression equation that is given below:

$$y = \beta_0 + \beta_1 X + \beta_2 M_i + \beta_3 X M_i + e \quad \dots\dots\dots (2)$$

In equation (2) the coefficient β_3 Must measure the interaction effects between the product innovation (independent variable X) and the moderating variable M_i ($i=1,2,3,4$). It is further noted that the regression coefficient Indicates the simple effect of X when the value of moderating variable M_i ($i = 1,2,3,4$) is not included or it is equal to zero or simply there is no interaction effect between the independent variable and moderator variable M_i ($i = 1,2,3,4$), so the test in the presence of moderation will be computed as the multiplication of the product innovation (X) and the moderator variable M_i ($i = 1,2,3,4$) as $X M_i$ ($i = 1,2,3,4$). To test the moderation in Model 1, we should calculate the interaction effect of the coefficient $X M_i$ ($i = 1,2,3,4$). Here we used model-1 given by (Hayes; 2013). The independent variables are Customer Perception (M_1), Advertisement (M_2); Research & Development (M_3), and Financial Position of the Company (M_4).

DATA ANALYSIS

To check the reliability of the data collected using 110 questionnaires, we conducted Cronbach's Alpha reliability test. The value of the test is 0.849, which indicates that responses are reliable.

Table 1: Correlations Matrix

	PI	CP	Adv.	R&D	FPC
SVC	.410**	.308**	.269**	.462**	.165
PI	1	.455**	.474**	.650**	.223*
CP		1	.600**	.763**	.314**
Adv.			1	.667**	.355**
R&D				1	.356**

Note: * $P < 0.1$, ** $P < 0.05$, *** $P < 0.01$, CSV= Sales Volume, PI=Product Innovation, CP=Customer Perception, Adv.=Advertisement, R&D=Research &

Development and FPC=Financial Position of Company.

Table 1 shows that there is a positive significant relationship between SVC and (PI, Adv., and R&D) while the relationship

between SVC with FPC is positive and non-significant. The above results also show that the relationship between PI and R&D is strong and positively significant while PI and FCP have a low significant relationship. In Table 1, there is a positively significant relationship between CP, Adv., R&D, and FPC. The relationship between Adv., R&D, and FCP is also positively significant. Similarly, the relationship between R&D and FCP is positive and significant.

Further, to test the hypothesis of the effect of product innovation on the Sales Volume of the companies in the presence of Customer Perception as a moderator variable, we conducted a regression analysis with moderation checked by using of Hayes (2013) technique. Results in Table 2, the R^2 indicating 35.77% of explained variation in Y due to X and M1. F-value shows that the regression model is statistically significant at a 1% level of significance.

Table 2: Regression Coefficients of Customer Perception

Coefficients	β	P	LLCI	ULCI
Constant	7.7840 (1.272)	.0289	5.2606	10.3073
Product Innovation (X)	-.4677 (0.114)	.000***	-.6942	-.2411
Customer Perception (M_1)	-.06154 (0.132)	.000***	-.8779	-.3529
M1X	.0594 (0.012)	.000***	.0372	.0815
R^2	0.3577			
F	19.6737			
MSE	0.7021			

***P<0.01

Table 2 represents the regression coefficients of the X, M1, and their interaction effect (Int-1). The coefficient of M1 is -0.6154, which is statistically significant at a 1% level of significance and has a negative impact on company sales volume. Similarly, the coefficient of X is -0.4677 is statistically significant, and negatively affects Y. The combined interaction of M_1X and their coefficient value is 0.0594, while the

combined interaction has a positive impact on the dependent variable. This indicates that the inclusion of a moderator is important in our regression model which explains more about the regression relation.

To test the hypothesis of the effect of Product Innovation on the Sale Volume of a Company in the presence of advertisement as a moderator variable, we conducted a regression model and moderation was checked by using the technique of Hayes (2013).

Table 3: Regression Coefficients of Advertisement

Coefficients	β	P	LLCI	ULCI
Constant	5.6009 (1.306)	.0000	3.0116	8.1903
advertisement (M2)	-0.3575 (0.123)	.0046***	-.6021	-.1128
Product Innovation (X)	-0.2565 (0.1184)	.0325**	-.4912	-.0217
M2X	0.0351 (.010)	.0011**	.0144	.0558
R^2	.2547			
F	12.0776	.0000***		

***P<0.01

The Regression model conducted in Table 3 has the Sale Volume of Company (Y) as the dependent and Product Innovation (X) as the independent variable while advertisement (M2) is used as the moderator variable, using a technique proposed by Hayes (2013). The results indicate that M_2 (-0.3575) hurts company sales volume. Similarly, the coefficient of X is -0.2565, which is statistically significant and negatively affects the volume of sales. The combined interaction of (advertisement M2) and (product innovation X) and their coefficient value is 0.0351 and it is also statistically significant at a 5% level of significance and the combined interaction has a positive impact on the dependent variable

i.e., 0.0351. Moreover, R^2 is statistically significant, which indicates that the inclusion of moderator advertisement is important in our model that explains more about the regression relation.

This Regression model conducted in Table 4 has the sales volume of Company (Y) as the dependent and Product Innovation (X) as the independent variable while research & development (M3) is used as the moderator variable, using the technique proposed by Hayes (2013). The R^2 is 0.3787 indicating 37.87% of explained variation in Y due to X and M3. The F-value shows that the regression model is statistically significant at a 5% level of significance.

Table 4: Regression Coefficients of R&D

Coefficients	β	T	P	LLCI	ULCI
Constant	6.7729 (1.183)	5.7255	.0000	4.4276	9.1183
R&D(M3)	-0.5368 (0.151)	-3.5519	.0006***	-.8364	-.2372
Product Innovation (X)	-0.4251 (0.105)	-4.0544	.0001***	-.6330	-.2172
int_1	0.0591 (0.012)	4.9626	.0000***	.0355	.0827
R^2	.3787				
MAP	.6791				
F	21.5354		.0000***		

***P<0.01

The above Table 4 shows the estimate of X, M3, and interaction effect (Int-1). The coefficient of M3 is statistically significant at a 5% level of significance. Similarly, the coefficient of X is statistically significant at a 5% level of significance and has the opposite effect on Y, as the value of this coefficient is negative. The combined interaction of (R& D; M3) and (product innovation X) and their coefficient value is 0.0591 and it is also statistically significant at a 5% level of significance. The combined interaction has a positive impact on the dependent variable i.e., 0.0591.

To test the hypothesis of the effect of Product Innovation on the Sale Volume of a Company

in the financial position of the company as the moderator variable, we conducted a regression model and moderation was checked by using the technique of Hayes (2013). In this Regression model which is conducted in Table 5, the Sale Volume of the Company (Y) is the dependent Product Innovation (X) is the independent variable while the financial position of the company (M4) is used as the moderator variable, using the technique proposed by Hayes (2013). The model summary results indicate that R^2 is 28.24% which explains the variation in Y due to X and M4. The F-value is 13.9074 shows that the model is statistically significant at a 5% level of significance.

Table 5: Regression Coefficients of Financial Position of Companies

Coefficients	β	p	LLCI	ULCI
Constant	6.9910 (1.477)	.0000	4.0612	9.9207
M4	-0.3610 (0.097)	.0005***	-.5587	-.1633
X	-0.4204 (0.149)	.0038***	-.7017	-.1391
int_1	0.0377 (.094)	.0001***	.0191	.0564
R ²	0.2824			
MSE	0.7843			
F	13.9074			

***P<0.01

Table 5 shows the regression coefficients of the X, M_4 . And their interaction effect (Int-1). The coefficient of M_4 is statistically significant at a 5% level of significance. Similarly, the coefficient of X is -0.4204, which is statistically significant at a 5% level of significance and has the opposite effect on Y, as the value of this coefficient is negative. The combined interaction of (financial position of company M4) and (product innovation X) and their coefficient value is also statistically significant. The combined interaction has a positive impact on the dependent variable i.e., 0.0377. When the financial position of the company is included as a moderator variable, the results indicate that the inclusion of the moderator financial position of the firm is important in our regression model which explains more about the regression relation.

CONCLUSION AND RECOMMENDATIONS

All the moderating variables in the study have a statistically significant effect on sales. Product innovation contributes to increasing the sales volume of companies. The impact of product innovation on sales volume is amplified when considering the moderating variable of customer perception. Similarly, product innovation has a greater effect on sales when taking into account the second moderating variable of advertising, the third moderating variable of research and development (R&D), and the fourth moderating variable of the companies'

financial position, all showing positive relationships.

The correlation results indicate a positive and significant relationship between the sales volume of companies and product innovation, advertising, and R&D. However, the relationship between sales volume and the financial position of the companies is positive but not statistically significant. Additionally, there is a strong positive and significant relationship between product innovation and R&D, while the relationship between product innovation and the financial position of companies is weak but still significant. Furthermore, customer perception, advertising, R&D, and financial position all show positive and significant relationships.

Given the substantial evidence of the positive impact of product innovation on the sales volume of companies, it is expected to create more job opportunities and contribute to income generation in the country. Therefore, product innovation should be followed as a strategy to increase the sales volume of a company. Product innovation should be focused in different directions such as Branding, Quality, Positioning viz-a-viz the customer needs, etc. It can be observed that companies often follow a collaborative and cross-functional approach to advancement, which operates separately from the formal systems already in place within the organization. Additionally, these companies tend to focus on improving their existing products through innovation, often driven by factors such as advertising, customer perception, and investments in research and

development (R&D), rather than relying solely on external resources or general availability.

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