MINGLING INTRA-PORTFOLIO COMPETITION WITH BRAND PORTFOLIO STRATEGY: A STUDY OF PHARMACEUTICAL INDUSTRY

Arslan Ayub[1], Dr. Rizwan Shabbir[2], Faiqa Kiran[3], Ahsan Zubair[4], Aamir Abbas[5]
[1]Lecturer, University of Sargodha (Lyallpur Campus),ayub_arslan@ymail.com
[2]Assistant Professor, Lyallpur Business School, Government College University, Faisalabad
rizwanshabbir@gcuf.edu.pk
[3]Lecturer, Government College University, Faisalabad, faiqakiran@gcuf.edu.pk
[4]Lecturer, Government College University, Faisalabad, ahsanzubair4002@gmail.com
[5]Lecturer, The University of Faisalabad, aamir.abbastuf@gmail.com

Abstract:
The current study aims to examine the influence of brand portfolio strategy in increased firm's performance in pharmaceutical sector in Pakistan. The study proposes brand scope, intra-portfolio competition, and brand positioning as the key determinants of brand portfolio strategy. The main reason for considering intra-portfolio competition to mingle with brand portfolio strategy is because of the increased inter-organizational competition in organizations i.e. in pharmaceutical sector, there are two types of major competitions; i) inter-organizational ii) intra-organizational (inter-portfolio). Thus, inter-portfolio competition addresses and helps organizations to design and manage their brand portfolios.

The study finds strong and promising integration of all the three key determinants of brand portfolio in delivering increased firm's performance. For instance, there is a positive correlation between brand scope (number of brands and number of market segments) with increased firm's performance. Also, there is a positive correlation between intra-portfolio competition and firm's performance. Finally, the study finds positive association between brand positioning (high-quality and low-price) and firm's performance.

The study uses quantitative approach for data analysis. To analyze data, the researcher distributed 300 research questionnaires in pharmaceutical sector in Islamabad and Rawalpindi and Lahore. The researcher found 267 completely filled research questionnaires from the respondents. For analysis, the study uses SPSS 17.0 and AMOS 20.0 for analysis. Co-variance, Cronbach's alpha, descriptive statistics, correlations analysis, structural equation model (SEM) and regression weights are generated using SPSS 17.0 and AMOS 20.0.

The study based on theoretical and empirical investigations provided ample recommendations for practitioners and marketing/product managers to consider brand portfolio strategy as an important policy to consider in their organizational missions so that the goals and objectives can be successfully achieved. Finally, the study proposes its limitation as its conducted in pharmaceutical sector only therefore, the similar model can be applied and analyzed in other industries.

Corresponding Author:
Aamir Abbas,
Lecturer,
The University of Faisalabad
aamir.abbastuf@gmail.com

QR code

Please cite this article in press Arslan Ayub et al., ***Mingling Intra-Portfolio Competition with Brand Portfolio Strategy: A Study of Pharmaceutical Industry.,*** *Indo Am. J. P. Sci, 2018; 05(10).*

INTRODUCTION:

Background: Pharmaceutical industry has been deliberated a vital economic driver as it amply accounts to edifice the Gross Domestic Product (GDP) due to its greater input in the economic development. Literature reveals that it's been amongst the top most industries worldwide which have meaningfully seized the attention of researchers and practitioners to conduct research on in marketing, operational, functional, and strategic levels. Pharmaceutical industry has been globalized, high-growth, large, and innovative intensive industry (1). According to a survey conducted in years 2008-2009, the census revealed that pharmaceutical industry values 650 Billion US$ on a global stance. However, the significant increase in this industry approximated to be 1.1 trillion US$ in 2014 (2). Narrowing down the quandary, around 700 pharmaceutical companies are functioning in Pakistan while the operating units accounted to be 386 companies. Thus, intensity of competitive rivalry can doubtlessly be analyzed which has reasoned researchers to provide theoretical as well as quantitative examinations of the critical issues and challenges faced by pharmaceutical industry in this decade.

As the theoretical building goes on, the review of literature as well as managerial consensus exposed the nature of ladder of products which are available facing intra-industry as well as intra-organizational challenges. Unlike, other industries even in Pakistan or on a global landscape, pharmaceutical industry though doesn't face the dynamic industrial trends yet due to complexity and fragility of its business nature pharmaceutical industry is majorly facing the intra-organizational competition. A terminology in business parlance named "Product Cannibalism" (3). Product Cannibalism historically is viewed as a lexicon presented few decades ago, though it has its roots for the past few centuries. A zoological extension of product cannibalism has been introduced in the managerial literature which significantly influenced the strategic decision making in regard of product portfolio extension or reduction strategies. (3) defined product cannibalism as taking off or mitigating the shares/brand equity of one product due to similar alternative product development of the new product. Despite of being a non-trending industry, pharmaceutical industry is highly facing the challenges of product cannibalism due to new product development in order to counterfeit the advanced disease cure due to various reasons.

Thus, the current study is purposed at measuring the impact of brand portfolio strategy in firm performance in pharmaceutical industry in Pakistan.

Brand Portfolio Strategy in Pharmaceutical Sector in Pakistan and problem identification

Organizational performance in this study is monitored in financial and marketing aspects therefore, both financial and marketing performance are examined in detail. in this study the researcher focuses on financial and marketing performance as a result of brand portfolio strategy. Financial performance of an organization is comprised of results or an outcome of that organization as examined compared to the intended outcomes and/or goals and objectives (4). Moreover, marketing performance is the improvement of effectiveness and efficiency and the analysis of this improvement in terms of effective marketing strategy (5). Those organizations, such as Getz, Pfizer, Bosch, and GSK, these organizations due to their historically developed prestigious image, these organizations are not facing certain challenges in the ratio as compared to other companies which lack proper brand portfolio strategy for marketing their products and uplifting their brands image. Therefore, brand portfolio strategy is of utmost importance of brand managers and senior levels executives to efficiently manage their brand to maximally exploiting the paybacks of multiple identical brands.

Problem Identification

Rather focusing on operational matters, the current study is more directed towards analyzing the strategic stance of brand management. Efficient brand portfolio strategy will result in an augmented marginal benefits, greater brand penetration, and enriched brand image, increased organizational performance. Organizational performance in terms of financial and marketing performance is monitored in this study. As by designing an efficient brand portfolio strategy, brand managers will leverage marketing personnel to effectively market their products and hence get the greater market share by competing the rivalry. Therefore, the current study is directed at investigating the impact of an efficient brand portfolio strategy in increasing organizational financial and marketing performance. (6) justified that efficient brand portfolio strategy is an effective marketing strategy to manage brand image and brand equity. Similarly, (7) postulated that inter-organizational competition leaves organizations with an increased share of return as there are increased products marketing under the one brand name _i.e._ organization. In the related stream, the greater the product positioning in the minds of customers, the higher would be product sales, ultimately increasing firm's financial and marketing performance.

Therefore, based on the significance and fragility of

this dilemma the current study is focused at measuring the impact of brand portfolio strategy in increased organizational performance in pharmaceutical industry in Pakistan.

Rationale of the Study

(8) hypothesized that there is a positive correlation between brand positioning and firm's performance. In addition, (9) found promising results of intra-organizational competition in increased organizational performance and greater market share. However, the study is novel in terms of merging intra-portfolio competition in brand portfolio strategy to empirically fallout the desired results based on theoretical foundations. Furthermore, in a research conducted in Europe; (1) found brand positioning as a source of growth and competitiveness in Pharmaceuticals. The current study found a lot of empirical justification of all these components to be fit as the key enablers and components of brand portfolio strategy. Hence, the current study is an endeavor to present the conceptual model based on the theoretical and empirical foundations and later on an empirical investigation of the proposed framework. The current study will contribute a valuable piece of theoretical and empirical examination in the existing body of literature about brand portfolio strategy and its impact in firm's financial and marketing performance, ultimately provide empirical data for various managerial implications. Therefore, the current study is novel in terms of its applicability and relevance with embryonic notions.

Research Questions

RQ1. How much does brand portfolio strategy impact firm's performance in pharmaceutical industry in Pakistan?
RQ2. How can scope, competition, and positioning result in an efficient brand portfolio strategy management?

LITERAURE REVIEW
Brand Scope

Brand scope is viewed at two main key elements such as number of brands and number of market segments. The literature reveals that there are various benefits entitled to both number of brands and number of market segments. Generally, having a large number of brands for any company is beneficial for that company as its been capable of attracting and retaining specialized personnel for that company which will help it in developing synergies with respect to development and specialized brand management in terms of media buying, market research, and brand equity (10). Secondly, it results

in getting heterogeneous consumer needs satisfaction and hence captures a greater market share (11). Thirdly, increased number of brands results in deterring rivals who wanted to make new entry in the market place (12; 13).

Researches indicate that increased number of brands assure the increased number of market segments for the company (14). As the number of brands increases, the number of market segments becomes more penetrated as companies brands are more circling in deeper markets which result in a greater market share and an enriched brand portfolio (14). On the other hand, studies also indicate that spreading the brands across different markets may also result in lower brand image and recognition as because of the market perception and consumer demand may vary across different markets (10).

Intra-Portfolio Competition

Likewise, the two-fold literature has been reviewed for the brand scope; intra-portfolio competition or product cannibalism is also viewed at the two distinct levels and the reasoning behind intra-portfolio competition to be considered as an important component of brand portfolio strategy lies at the view point of the supporting literature which justifies the intra-portfolio competition as a strategic brand portfolio choice. Intra-portfolio competition or product cannibalism, or sometime may also be referred to as inter-brand overlap is the extent to which the similar products features offer variants in a product category of two or more brands (15).

Brand Positioning

(16) Endorsed that theory of positioning is centered at three propositions. Principal proposition is that organizations operate in an over conversed society and shelled with current and latest information on an ongoing and regular basis. Next proposition is about mind which is surrounded by a defense system against the litter. And finally, the focused messages are the only choice to break the jumble and instill the message. In this perspective, (17) argued that the battles of marketing the products cannot be taken place in supermarkets or in offices.

Generally, the most important attribute of a brand is considering the quality it possess (18). A massive stream of researches hypothesized that the alleged quality of a brand is the eminent and salient feature of that brand which adds value to the brand in customers' perception and purchase intentions (19). As far as the brand portfolio is concerned in regards of positioning, there is a positive association between the acknowledgement and appreciation of the

extended brands with the perceived quality of that brand (20).

Brand Portfolio Strategy and Firm's Performance
Research on pharmaceutical industry as well as brand management, brand positioning, and intra-portfolio competition is increasing because of their realization and recognition in setting up strategic sustainable directions for companies. Researches have been increasingly acknowledged to link resources in order to develop marketing assets with firm's marketing and financial performance (21). Researchers have moved their attention at the branding strategies and brand on the growth, stock price, and firm's performance (22).

In this perspective, a well-developed theoretical rationale has been found contributing in marketing literatures (23) as well as massive empirical evidence (6) has been found throwing lights on the importance of brands in firm's performance and competitive advantage (21). As a consequence, it has been inevitably noticed that brands are remarkable assets for an enhanced organizational performance (7). However, (24) argued that many organizations in the consumers markets especially of large size occupy many brands *i.e.* they possess a brand portfolio and are engaged in making strategic decisions about these brand portfolios for achieving sustainable organizational performance (25). There has been varying theoretical literature found authenticating the importance of brand portfolios as possessing a larger
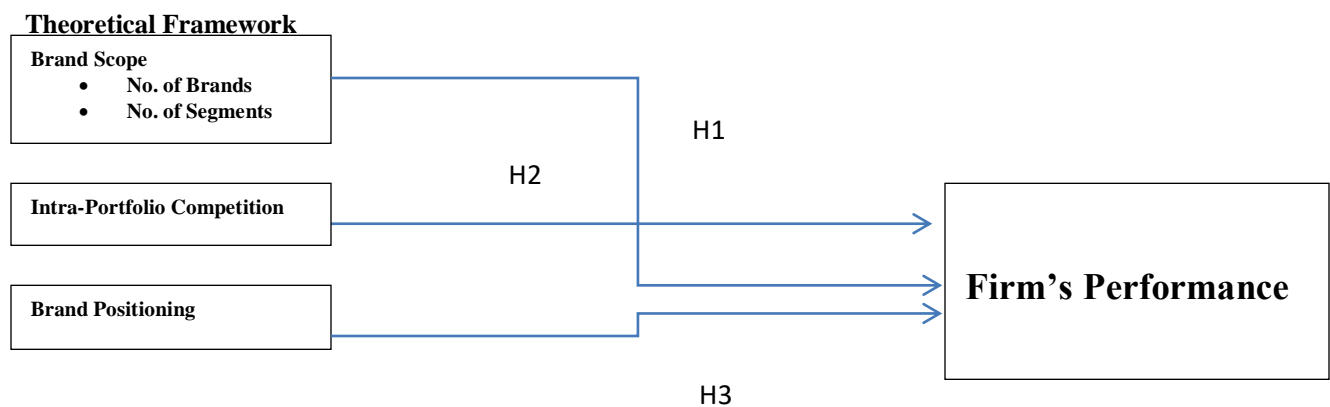
brand portfolio result in increased performance and enhance market share because of the prevalence of number of brands occupying a greater portion of markets (7).

As far as positioning is concerned; researches have provided evidence that increased number of brands result in a better brand positioning which will also result in increased brand equity (25). In particular, those brands which possess high quality enjoy high acknowledgement and results in increased profit for companies as a result of certain marketing actions such as price promotions (26). Likewise, theoretically it has also been witnessed practically that companies mostly make rational decisions in design their brand portfolio strategy. There are many companies who have minimized their brand portfolios and on the other hands, many companies are found extending their brand portfolios.
Thus, brand portfolio strategy and decision whether to increase or decrease brand portfolios depend on all the three key aspects of brand portfolio strategy such as scope, competition, and positioning and results in increasing the firm's performance.

Hypotheses Statements
H1. Brand scope has a significant positive impact in organizational performance
H2. Intra-portfolio competition has a significant positive impact in organizational learning
H3. Brand Positioning is positively associated with organizational performance

Theoretical Framework

MATERIAL AND METHODOLOGY:
Sample and Sampling
The current study aims to measure the impact of brand portfolio strategy in increased firm's performance in pharmaceutical industry in Pakistan. The target respondents for this study are pharmaceutical employees usually marketing managers, product/brand managers, and/or asst. managers. The purpose of this study is to measuring the influence of independent variables such as brand scope, intra-portfolio competition, and brand positioning on dependent variable such as increased firm's performance. Therefore, purposive sampling is used in this study because this is directly concerned with the purpose of the study.

The selection of sampling depends on the research design which depends on the path of the model. For the present study, non-probability sampling technique was found to be most appropriate for this type of research design. As the concern of study is examining the significance of brand portfolio strategy therefore, those respondents are targeted who have a direct or indirect census about the importance of brand portfolio management in pharmaceutical sector in Pakistan. A total of 300 questionnaires were distributed to the target population and there demographics are put in the frequency distribution table. The researcher found 267 completely filled research questionnaires having a response rate of 89%. Respondents were reminded twice by contacted in person for ensuring the maximum response.

Variables
The independent variables in this study are brand scope, intra-portfolio competition, and brand

positioning. The current study is conducted to examine the relationship between brand portfolio strategy and increased firm's performance in pharmaceutical industry in Pakistan. Therefore, the dependent variable of this study is increased firm's performance and the instrument to measure increased firm's performance is consisted of 8 items ranked on 5-points Likert Scale (1 for strongly agree and 5 for strongly disagree).

Reliability Analysis
Cronbach's Alpha is used to confirm the reliability of the research instrument and to ensure the internal consistency of items with their variables. (27) suggested that the value of 0.70 or above is more appropriate for a better reliability of the scale. The Cronbach's Alpha for all variables is present in the Table 1 presented below.

Table 1 Reliability of Measurement Instrument

Dimension	No. of Items	Cronbach's Alpha
Brand Scope	7	0.768
Intra-portfolio Competition	6	0.786
Brand Positioning	6	0.786
Increased Firm's Performance	8	0.816

RESULTS AND DISCUSSION

The current study is aimed at examining the impact of brand portfolio strategy in increased firm's performance in pharmaceutical sector in Pakistan. The analysis of the results and interpretation is presented in this chapter. SPSS 17.0 is used to find out the descriptive statistics and Cronbach's Alpha analysis. In addition, AMOS 20.0 is used to find out the regression weights and co-variance and Structural Equation Model (SEM). The results are presented below:

Descriptive Statistics

Table 2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BS	267	1.12	4.78	2.1919	.44632	.453	.206	.178	.406
IPC	267	1.33	4.30	2.1721	.54545	.427	.206	-.523	.406
BP	267	1.57	3.00	2.2754	.67345	.489	.206	-.676	.406
FP	267	1.47	3.40	2.2134	.64445	.457	.206	-.632	.406

Table 2 depicts the descriptive statistics of the data collected from the target population. Descriptive statistics is an important technique to confirm the normality of data. Studies suggest that the values of Skewness and Kurtosis should fall between -3 to +3. For this analysis, both in pilot testing and in main study the values of Skewness and Kurtosis fall between -3 to +3. This ensures that the data is normally distributed. Furthermore, descriptive statistics

shows the mean values for brand scope, intra-portfolio competition, and brand position as well as firm's performance. Brand positioning has the highest mean with a value of 2.2754 followed by brand scope with a mean value of 2.1919, while intra-portfolio competition has the lowest mean of 2.1721. The values of Skewness and Kurtosis are presented in table which are well between -3 to +3. The result of descriptive statistics justifies the selection of data.

Table 3 Correlations

		BS	ICP	BP
IFP	Pearson correlation	.677(**)	.787(**)	.727
	Sig. (2-tailed)	.000	.000	.000
	N	267	267	267

**Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlations analysis is produced in Table 3. Results indicate a positive relationship among all the variables. There is a positive correlation between brand scope and increased firm's performance by 0.677. In addition, intra-portfolio competition is positively correlated with increased firm's performance with a highest value of 0.787. On the while, brand positioning is also positively correlated with increased firm's performance having a value of 0.727. All the values have significance of 0.000. This indicates that the values are significant in terms of applicability. For any analysis, the value of significance "P" should be less than 0.01 (2-tailed). Thus, for this study all the values are 0.000 and significant.

Figure 1 Structural Equation Model
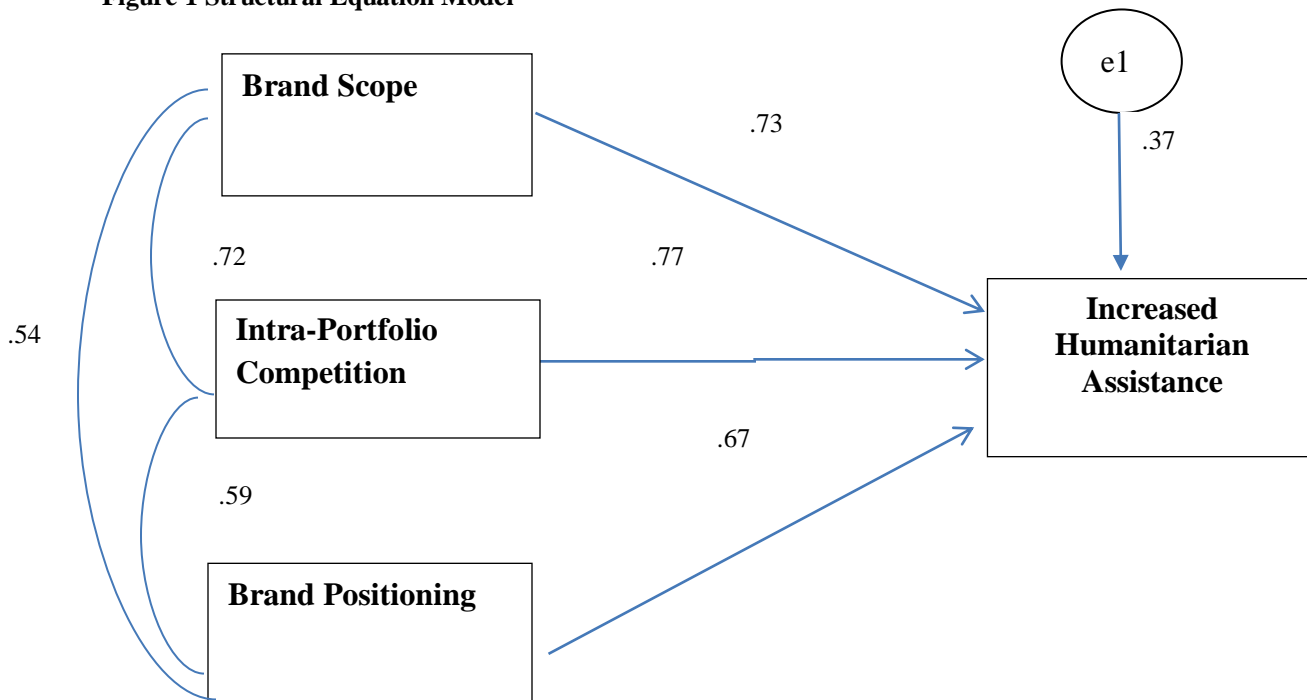
Figure 1 Structural Equation Model
Table 4 Regression weights.

Hypotheses		Estimate	S. E.	C. R.	P	Decision
H1	IFP < --- BS	0.737	.089	4.549	.000	Accept
H2	IFP < --- IPC	0.787	.085	5.648	.000	Accept
H2	IFP < --- BP	0.676	.093	9.879	.000	Accept

Table 5 Co-variances.

		Estimate	S. E.	C. R.	P
IFP	< --- BS	0.222	.018	6.734.000	
IFP	< --- IPC	0.287	.050	5.374.000	
IFP	< --- BP	0.368	.070	5.212.000	

AMOS 20.0 is used to produce the analysis of regression weights and generate structural equation model presented in Table 4 and Figure 1 above. The results indicate that if brand scope is increased by 1 increased firm's performance is also increased by 0.737 with standard error of .089 and critical ratio of 4.549. If intra-portfolio competition goes up by 1 firm's performance also increases by 0.787 with standard error of .085 and critical ratio of 5.648. If brand positioning goes up by 1 firm's performance also increases by 0.676 with standard error of .093 and critical ratio of 9.879. The value of P indicates the significance of the study which should be less than 0.01. For H1, which states that brand scope is positively correlated with increased firm's performance, the value of P is .000. Therefore, hypothesis H1 is accepted. For H2, which states that intra-portfolio competition is positively correlated with increased firm's performance, the value of P is .000. Therefore, hypothesis H2 is also accepted. For H3, which states that brand positioning is positively correlated with increased firm's performance, the value of P is .000. Therefore, hypothesis H3 is also accepted.

Table 5 indicates the co-variances among dependent and independent variables. The covariance between brand scope and increased firm's performance is estimated to be 0.222 and is significantly different from 0 at the 0.001 level (two-tailed). The covariance between intra-portfolio competition and increased firm's performance is estimated to be 0.287 and is significantly different from 0 at the 0.001 level (two-tailed). In addition, the covariance between brand positioning and increased firm's performance is estimated to be 0.368 and is significantly different from 0 at the 0.001 level (two-tailed).

DISCUSSIONS:

The purpose of this study is to measure the impact of brand portfolio strategy in increased firm's performance. Firms' performance in study is considered in terms of financial and marketing performance. This means that brand portfolio strategy has a positive impact in both increasing firm's marketing and financial performance by considering the effective management of brand portfolio with respect to brand scope, intra-portfolio competition, and brand positioning. In advancing the research, conceptual framework turned into empirical

investigations and the data represent a valid justification of the proposed framework. For this purpose, various tests were employed using frequency distribution, descriptive statistics, co-variances and structural equation modeling technique using AMOS 20.0 and SPSS 17.0.

First independent variable is brand scope which focuses on the number of brands and number of market segments for efficient brand portfolio management. Brand scope has been supported with lots of previous theoretical as well as empirical investigations. For instance, (10) suggested that for organizations to have a large number of brands provides benefits for that company as its been capable of attracting and retaining specialized personnel for that company which will help it in developing synergies with respect to development and specialized brand management in terms of media buying, market research, and brand equity. Furthermore, brand scope results in getting heterogeneous consumer needs satisfaction and hence captures a greater market share (11). In addition, (12) endorsed that increased number of brands results in deterring rivals who wanted to make new entry in the market place. Thus, theoretical building lead to infer the importance of brand scope for increased firm's performance, which is empirically proved in this study as presented in previous chapters.

Similarly, focusing on the importance of brand scope, the current study advised and presented theoretical framework which aims at merging intra-portfolio competition with brand portfolio strategy. Therefore, both theoretical as well as quantitative approaches employed in this study resulted in providing empirical evidences on the importance of intra-portfolio competition in considering in developing brand portfolio strategy. Therefore, it significantly results in improved firm's performance. As validated by (8) the most important benefit associated with intra-portfolio competition is lowering the risk of customer switching behavior of one companies' products. Furthermore, intra-portfolio competition allows an organization to meet the target market's requirement by offering a variety of alternatives with minimum differentiations hence resulting in increased market share (7).

In the similar construct, third hypothesis of this study

which states; brand positioning has a positive impact in increased firm's performance. Therefore, brand positioning is theoretically as well as empirically tested in this study. The results of this study are highly supported by theoretical building presented in Chapter Two. For example, (26) provided justification that in particular, those brands which possess high quality enjoy high acknowledgement and results in increased profit for companies as a result of certain marketing actions such as price promotions. Moreover, another research study conducted by (20) demonstrated that brand positioning has a positive association between the acknowledgement and appreciation of the extended brands with the perceived quality of that brand.

Therefore, it is both theoretically as well as empirically justified that brand portfolio strategy is considered an eminent factor resulting in increased firm's performance. Especially, in pharmaceutical industry where brands are with little advancements and formulas being introduced in the market which may impact even positively or negatively on firm's performance for other brands. Thus, brand portfolio strategy is a tool for organizations to trigger the firm's performance by monitoring, controlling, and strengthening brand scope, competition, and brand positioning for increased firm's performance.

CONCLUSION:
The current study is purposed at measuring the impact of brand portfolio strategy in increased performance in pharmaceutical industry in Pakistan. The researcher conceptualizes three key determinants for an effective brand portfolio strategy in this study. The first determinant of brand portfolio strategy is scope in terms of brands and markets. The second element of brand portfolio strategy is competition, which focuses on intra-organizational competition (product cannibalism). Finally, the third component is positioning in regards of high-low quality and high-low pricing. Self-possessed, all three components are the pillars for designing an efficient brand portfolio, hence presumed as an effective brand portfolio strategy. And found promising results in regards of all the constituents of brand portfolio strategy. For instance, the study finds a strong positive correlation between intra-portfolio competition and increased firm's performance. Likewise, the study also finds positive influence of brand scope in enhanced firm's performance. Finally, the study finds that brand positioning with respect to high-quality and low price delivers significant results in enhancing firm's performance.

Since the identification of problem and development of the construct taken place, the study is specifically designed to address the pharmaceutical industry in Pakistan. The main reason for considering pharmaceutical industry is the intensity of competitive rivalry that can doubtlessly be analyzed which has reasoned researchers to provide theoretical as well as quantitative examinations of the critical issues and challenges faced by pharmaceutical industry in this decade. The study finds that despite of being a non-trending industry, pharmaceutical industry is highly facing the challenges of product cannibalism due to new product development in order to counterfeit the advanced disease cure due to various reasons. Therefore, it is deemed feasible to cater intra-portfolio competition and merge it with brand portfolio strategy for developing and designing an effective brand portfolio which may be able to turn firm's financial as well as marketing performance in an expedited trend.

The study is significant in terms that it throws light on the significance intra-portfolio competition that in this 21st century those organizations who crave to cope up with this fast-paced business era necessitate the successful establishment and maintenance of effective brand portfolio strategy. The study suggests that whenever we talk about brand portfolio management we are talking about a strategy. Brand portfolio strategy comprised of brand scope, competition, and brand positioning is supposed to be the key strategic tool to be executed effectively in order to enhance organizational performance. The current study has justified the importance of brand portfolio strategy which is in line with numerous other research studies that provide evidence that those organizations who have effectively executed brand portfolio strategy have ultimately achieved their goals easily. The study provided evidence that the concrete output of brand portfolio strategy is increased organizational performance.

Limitations
There are few limitations of this study. Firstly, the study is specifically designed to conduct on pharmaceutical sector in Pakistan. Despite of the fact that pharmaceutical industry is very large and constitutes enough for contributing to GDP for any country, yet there are possibilities the similar model cannot be applied to different industries. For instance, Unilever has reduced their product line from 1200 to 400 only; this means intra-portfolio competition may have different impacts in different industries. However, this may also be an area of concern to be filled by some advanced research studies in future. Secondly, only Rawalpindi/Islamabad and Lahore are considered for target population in this study.

REFERENCES:

1. Gambardella, A., Orsenigo, L., and Pammolli, F. (2000), "*Global Competitiveness in Pharmaceuticals: A European Perspective*", MPRA Paper No. 15965, posted 30. June 2009 09:08 UTC.
2. Aamir, M. and Zaman, K. (2011), "Review of Pakistan Pharmaceutical Industry: SWOT Analysis", *International Journal of Business and Information Technology,* 1(1), pp. 114-117.
3. Velu, C. and Stiles, P. (2012), *Managing Decision-Making and Cannibalization for Parallel Business Models,* Cambridge Service Alliance.
4. Richard, B., Upadhaya, B., and Blount, Y. (2009), "Measuring Organizational Performance: Towards Methodological Best Practices", *Journal of Management.* 5(4), pp. 75-84.
5. Gerard, M. (2008), "The best technology marketers are well versed in MPM", *B2B Magazine.*
6. Anand, B.N. and Shachar, R. (2004), "Brands as Beacons: A New Source of Loyalty to Multiproduct Firms", *Journal of Marketing Research*, 41, pp. 135–50.
7. Bordley, R. (2003), "Determining the Appropriate Depth and Breadth of a Firm's Product Portfolio", *Journal of Marketing Research*, 40, pp. 39–53.
8. Draganska, M. and Jain. D. (2005), "Product line length as a competitive tool. Journal of Econom", *Management Strategy,* 14 (1), pp. 1-.28.
9. Hui, K. (2004), "Product variety under brand influence: an empirical investigation of personal computer demand", *Management Science*, 50 (5), pp. 686-700.
10. Kapferer, J.N. (1994), *Strategic Brand Management.* New York: The Free Press.
11. Lancaster, K. (1990), "The Economics of Product Variety: A Survey," *Marketing Science,* 9 (3), pp. 189–206.
12. Putsis, W.P. (1997), "An Empirical Study of the Effect of Brand Proliferation on Private Label-National Brand Pricing Behavior," *Review of Industrial Organization,* 12 (3), 355–71.
13. Blankson, C., and Kalafatis, S. P. (2004), "The development and validation of a scale measuring consumer/customer-derived generic typology of positioning strategies", *Journal of Marketing Management,* 20, 5-43.
14. Palich, L.E., L.B. Cardinal, and C.C. Miller (2000), "Curvilinearity in the Diversification-Performance Linkage: An Examination of over Three Decades of Research," *Strategic Management Journal*, 21 (2), pp. 155–74.
15. Aribarg, A. and Arora, N. (2006), "Inter-Brand Variant Overlap: Impact on Brand Preference and Portfolio Profit", *Marketing Science.*
16. Ries, A., and Trout, J. (1986). *Positioning, the battle for your mind,* (Rev. ed.). New York: McGraw-Hill.
17. Manhas, P.S. (2010), "Strategic Brand Positioning Analysis through Comparison of Cognitive and Conative Perceptions", *Journal of Economics, Financial Administration, and Science,* pp. 15-29.
18. Kwun, D.J-W. and Oh, H. (2009), "Consumers' Evaluation of Brand Portfolios", *Hospitality Management,* pp. 81-97.
19. Jacobsen, R., and Aaker, A.D. (1987), "The strategic role of product quality", *Journal of Marketing,* 51, 31–44.
20. Aaker, D.A., (1990), "Brand extensions: the good, the bad, and the ugly", *Sloan Management Review,* 31 (4), 47–56.
21. Rust, R.T., Tim A., Gregory S.C, Kumar, V., and Rajendra K.S. (2004), "Measuring Marketing Productivity: Current Knowledge and Future Directions", *Journal of Marketing*, 68, pp. 76–89.
22. Hanssens, Dominique M., Ronald T. Rust, and Rajendra K. Srivastava (2009), "Marketing Strategy and Wall Street: Nailing Down Marketing's Impact," *Journal of Marketing,* 73 (6), 115-118.
23. Keller, K.L. (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity", *Journal of Marketing,* 57, pp. 1–22.
24. Aaker, D. A. (2004), *Managing Brand Equity.* New York; The Free Press.
25. Kumar, N. (2003), "Kill a Brand, Keep a Customer", *Harvard Business Review*, 81(12), pp. 86–95.
26. Allenby, Greg M. and Peter E. Rossi (1991), "Quality Perceptions and Asymmetric Switching Between Brands," *Marketing Science,* 10 (3), pp. 185–204.
27. Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.