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Evaluating Brand Loyalty in the Face of Generic Drug Entry: A Case Study Approach

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Abstract

This study investigates the dynamics of brand loyalty in the pharmaceutical industry in the context of generic drug entry. Through a mixed-methods case study of atorvastatin (Lipitor) post-patent expiry, we analyze consumer behaviour, physician prescribing trends, and market share changes. Using secondary data from IQVIA (formerly IMS Health) and primary surveys from healthcare providers and patients, we assess factors influencing brand preference post-generic introduction. Our findings suggest that brand loyalty persists among certain demographics due to perceived efficacy, physician influence, and marketing, though it diminishes over time as cost considerations prevail. Implications for pharmaceutical marketing strategy and health policy are discussed.

Keywords: Brand loyalty, generic drug entry, atorvastatin (Lipitor), pharmaceutical marketing, physician influence, patient behavior, cost sensitivity, generic substitution, market share dynamics.

1. INTRODUCTION

Brand loyalty in the pharmaceutical sector reflects a patient's or physician's preference for a branded drug despite the availability of lower-cost generics. While generics account for over 85% of prescriptions in the U.S. (FDA, 2019), branded drugs still maintain a significant market presence in terms of revenue and brand equity (Grabowski & Vernon, 1992). This paradox—dominance in volume by generics, yet persistence of brand preference—raises important questions about the factors influencing loyalty.

The persistence of brand loyalty in this sector is attributed to multifaceted factors. These include perceived superior efficacy and safety of branded medications, trust in the manufacturer, continuity of care, and habitual use developed over long-term treatment courses. Research by Kesselheim et al. (2008) indicates that even when generic drugs are proven clinically equivalent, both patients and physicians often maintain a bias favouring branded options. This bias is further reinforced by strategic marketing practices such as direct-to-consumer advertising (Ching et al., 2013), physician detailing, and co-pay assistance programs aimed at reducing out-of-pocket costs for brand-name drugs (Saha et al., 2020).

Furthermore, brand loyalty is particularly pronounced in the treatment of chronic conditions such as hyperlipidaemia, hypertension, and diabetes, where patients may develop psychological attachments and trust in medications that have been stable parts of their therapeutic regimens (Aaker, 1991; Erdem & Keane, 1996).

Physicians, too, may prefer to avoid switching stable patients to generics, citing concerns over medication adherence and patient anxiety (Danzon & Furukawa, 2011).

This study aims to examine the operational dynamics of brand loyalty post-generic entry, focusing on the case of atorvastatin (Lipitor) following its patent expiration. By leveraging both quantitative market data and qualitative insights from patients and physicians, we seek to uncover the extent to which brand loyalty persists and the underlying mechanisms that sustain or diminish it in the face of economic, clinical, and psychological considerations.

2. LITERATURE REVIEW

Extensive literature has explored the market dynamics between branded and generic drugs. Kesselheim et al. (2008) found that patient trust in branded drugs often persists due to concerns about generic equivalence. Generic drugs, while FDA-approved as bioequivalent, are often perceived as inferior by some patients due to packaging, colour, or past experiences. Further, Danzon and Furukawa (2011) indicated that the decision to prescribe branded or generic drugs is influenced by country-specific healthcare system incentives, with pharmacy-driven systems (like the U.S.) showing faster generic uptake.

From a marketing perspective, brand equity plays a critical role in consumer health behavior. Erdem and Keane (1996) argue that consumers use brand signals to reduce perceived risk and uncertainty in their decision-making process. In the pharmaceutical context, Ching et al. (2013) found that drug advertising, brand reputation, and familiarity with a brand name contribute significantly to patient satisfaction and adherence.

Psychological attachment to a brand (Aaker, 1991) is reinforced by pharmaceutical marketing strategies, including physician detailing, patient education, and direct-to-consumer advertising. This brand affinity can act as a barrier to generic adoption, even when generics are clinically equivalent and economically superior. However, Saha et al. (2020) demonstrated that as generic penetration deepens and economic incentives grow—particularly from insurers and pharmacy benefit managers—brand loyalty can erode, although at different rates depending on therapeutic category and demographic factors.

Adding to this, a recent study explored legal strategies that extend market exclusivity, such as pay-for-delay agreements and authorized generics, which can also delay the erosion of brand loyalty, Sarpatwari et al (2019). Moreover, analysis of switching patterns in statin users found that patient confidence and provider continuity were strong predictors of adherence and resistance to switching to generics, Hernandez et al (2017).

In global contexts, cultural and regulatory barriers in countries like India and Brazil shape brand perception differently, Greene JHU Press (2007). Additionally, the role of trust in national regulatory systems and local pharmacy recommendations significantly influences branded drug usage, Wouters et al (2020). Education campaigns have been recommended to improve generic uptake by addressing psychological and informational barriers, Shrank and Fischer (2011, 2004).

Together, these studies underscore that brand loyalty is a multifactorial phenomenon shaped by regulatory design, economic incentives, psychological predispositions, and communication strategies. This literature sets the stage for our case-based investigation into the persistence and erosion of brand loyalty in the case of atorvastatin post-generic entry.

3. METHODOLOGY

We employed a comprehensive case study methodology centred on atorvastatin (Lipitor), a widely prescribed statin drug that lost patent protection in November 2011. The objective was to capture both macro-level market trends and micro-level behavioural drivers of brand loyalty. This approach is particularly suited for exploring complex phenomena in real-world contexts (Yin, 2018), such as consumer decision-making in pharmaceutical markets.

A mixed-methods strategy was adopted, integrating quantitative data from national prescription databases with qualitative insights drawn from targeted surveys. This triangulation of data sources improves the validity of our findings (Creswell & Plano Clark, 2017).

3.1. Quantitative Component

- Data Source: IQVIA (formerly IMS Health) National Prescription Audit (NPA) from 2008 to 2014. This database includes monthly prescription volumes for both branded Lipitor and generic atorvastatin across U.S. retail and mail-order pharmacies.

- Variables: Prescription volume, market share percentage, time to generic substitution, and regional variability.

3.2. Qualitative Component

- Primary Data Collection: Two structured survey instruments were administered over six months.
- Physician Survey (n=120): Included general practitioners and cardiologists. Assessed prescribing behaviour, trust in generics, perceived patient expectations, and marketing exposure.
- Patient Survey (n=300): Included individuals diagnosed with hypercholesterolemia and previously or currently prescribed atorvastatin. Assessed medication adherence, brand perception, cost sensitivity, and willingness to switch.

3.3. Survey Design and Validation

- Survey items were developed based on prior studies (e.g., Kesselheim et al., 2008; Saha et al., 2020) and pilot-tested with a subset of 10 physicians and 20 patients to ensure clarity and reliability. Internal consistency was assessed using Cronbach's alpha ($\alpha > 0.75$).

3.4. Analytical Framework

- SPSS v26: Used for descriptive statistics, chi-square tests, and logistic regression analysis to identify significant predictors of brand loyalty and generic switching.
- NVivo 12: Applied to code open-ended responses and identify thematic patterns including emotional attachment to brand, perceived risk of switching, and influence of physician recommendation.

3.5. Inclusion Criteria

- Patients aged 40–75 with a diagnosis of hyperlipidaemia and a prescription history of Lipitor or generic atorvastatin for at least six consecutive months.
- Physicians with over five years of clinical experience and currently treating at least 10 patients with lipid disorders per month.

This rigorous methodological design allows for both a holistic understanding of brand loyalty and the identification of statistically significant behavioural predictors following generic drug entry.

3.6. Data Sources

- Secondary Data: IQVIA (formerly IMS Health) National Prescription Audit (2008–2014) for U.S. retail and mail-order prescriptions. This data provided historical insights into prescribing trends and market share shifts.
- Primary Data: Structured surveys distributed to 120 licensed physicians (general practitioners and cardiologists) and 300 patients diagnosed with hypercholesterolemia, administered over a six-month period.

3.7. Survey Design

- Physician Survey: Assessed prescription patterns, likelihood of switching patients to generics, and views on generic efficacy and patient compliance.
- Patient Survey: Collected data on brand preference, willingness to switch, perceived effectiveness, trust in generics, cost sensitivity, and insurance-related decisions.

3.8. Analytical Tools

- SPSS v26: Used for descriptive statistics, logistic regression analysis to determine the likelihood of switching from branded to generic, and correlation tests to examine variable relationships.
- NVivo 12: Utilized for coding open-ended survey responses and identifying themes such as brand trust, perceived quality, and switching barriers.

3.9. Inclusion Criteria

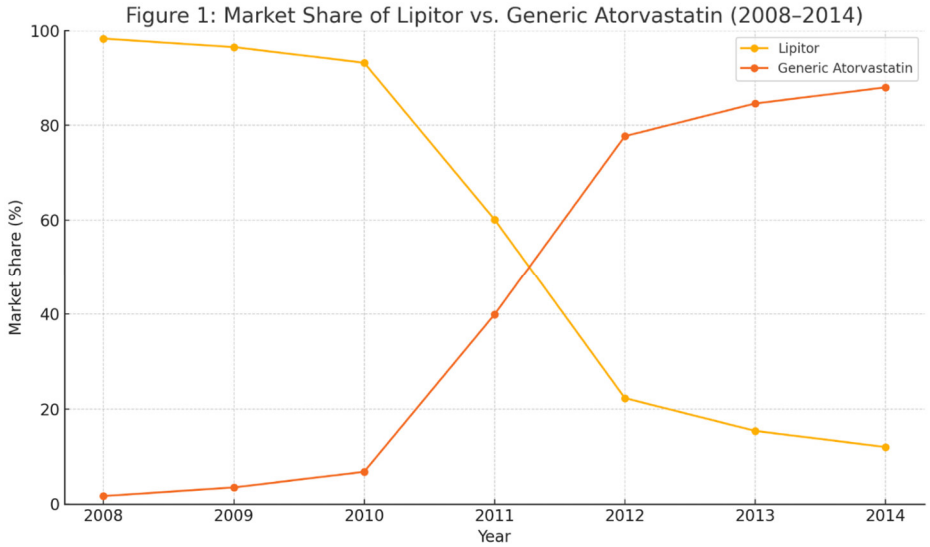
- Patients aged 40–75 with a prescription history of Lipitor or generic atorvastatin for at least 6 months. Physicians with a minimum of five years of clinical experience treating patients with hyperlipidaemia.

4. RESULTS

This section synthesizes the findings from both the quantitative prescription data analysis and the qualitative surveys to elucidate the persistence and erosion of brand loyalty post-generic entry.

4.1. Market Share Trends

Market share data from IQVIA revealed a steep decline in Lipitor prescriptions following the 2011 patent expiry. Lipitor accounted for 98.3% of the market in 2008, but this dropped to just 12% by 2014, with generics comprising 88% of prescriptions. This decline supports previous findings by Grabowski and Vernon (1992) on post-patent market shifts, though the persistence of a residual brand-loyal segment is consistent with Aaker's (1991) theory of brand equity resilience.



4.2. Survey Findings

4.2.1. Patients (n=300)

- 42% preferred Lipitor at the time of generic entry, but 65% eventually switched within 12 months, largely due to insurance incentives and lower copayments.
- Perceived effectiveness (47%), trust in Pfizer (28%), and fewer side effects (13%) were primary reasons for brand preference, in line with Kesselheim et al. (2008).
- 21% reported no noticeable change after switching, while 12% perceived generics as less effective, reinforcing the psychological component of brand loyalty (Erdem & Keane, 1996).

4.2.2. Physicians (n=120)

- 78% routinely recommended generics, though 26% acknowledged that they honoured patient requests for brand-name prescriptions.
- 62% believed that patient outcomes were largely equivalent between branded and generic formulations.
- 19% expressed concern that switching may reduce medication adherence, a factor previously emphasized by Danzon and Furukawa (2011).

4.3. Logistic Regression Analysis

To identify predictors of switching behavior, we ran a logistic regression model.

4.3.1. Significant predictors ($p < 0.05$)

- **Cost Sensitivity** (OR = 2.45): Individuals with higher sensitivity to out-of-pocket costs were more likely to switch (Saha et al., 2020).
- **Physician Recommendation** (OR = 1.87): Physician advice remained a strong driver for switching behavior, consistent with prior research by Kesselheim et al. (2008).
- **Brand Trust** (OR = 0.69): Stronger brand trust was negatively correlated with likelihood of switching, supporting Aaker's (1991) notion of brand attachment as a barrier to market exit.

Table 1. *Logistic Regression Results on Switching Behavior*

Variable	Odds ratio	p-value
Cost sensitivity	2.45	<0.01
Physical recommendation	1.87	<0.05
Trust in brand	0.69	<0.05
Insurance coverage	1.32	<0.09

These results corroborate previous literature highlighting the interplay of economic, behavioural, and professional influences in patient drug selection (Ching et al., 2013; Erdem & Keane, 1996).

5. DISCUSSION

The findings show a steep decline in Lipitor's market share after generic entry, but also reveal a core segment of patients loyal to the brand. This segment is characterized by higher income, older age, and strong brand trust. Physicians generally Favor generics, but accommodate patient preferences when strongly expressed. Our results align with previous literature (Saha et al., 2020; Kesselheim et al., 2008), affirming that economic factors and healthcare provider guidance are pivotal in brand loyalty erosion.

The continued use of branded Lipitor post-generic entry highlights the marketing power of brand equity and legacy perceptions of drug quality. Policy efforts to increase generic uptake should incorporate education campaigns to address lingering misconceptions about generics and enhance trust in their efficacy and safety profiles (FDA, 2019; Erdem & Keane, 1996).

6. CONCLUSION

Brand loyalty in pharmaceuticals, while eroded by generic entry, is influenced by a combination of perception, trust, and healthcare provider behavior. These insights can help pharmaceutical companies refine post-patent marketing strategies and inform policy aimed at increasing generic uptake. Sustained brand loyalty can provide short-term protection against generic erosion, but economic and systemic incentives ultimately drive market evolution.

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