Long-Term Discounting Frameworks: Insights from Multiple Experiments

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ABSTRACT

Ever since the online retailing format has emerged in India, consumers now have wider options available for them to buy a product at a discounted price and notably, as online stores in India are following the product discounting as one of the key drivers for consumer acquisition, consumers' perspective towards discount at brick-and-mortar store has changed. This change in consumers' perspective has put the majority of brick-and-mortar retailers in India into a quandary and they are losing out their market share slowly to online retailers. In this research which is based on recommendations of empirical research previously carried out on the impact of changes in retailer and consumer perspective towards discount post emergence of online stores in India, we have carried out multiple experiments on multiple long-term discounting frameworks to investigate and recommend brick-and-mortar retailers on ideal(a) frameworks, (b) duration, (c) types, (d) assortment coverage, and (e) advertising techniques for long-term discounting strategies to enable brick-and-mortar retailers to design appropriate sales promotions to gain a competitive advantage over online retailing on the discount component.

Keywords: Discount, End-of-season sale, Brick-and-mortar store, Offline store, Physical store, Consumer perspective, Online store, Sales promotion, Discount Framework, Long-Term Discounts.

1. INTRODUCTION :

The e-commerce retailing format undoubtedly making a paradigm shift in the way retailing is done in India. This new retailing format, e-commerce is projected to grow to 62.3 billion US$ by the year 2023 which is at 32.34 billion US$ in the year 2019. Such a significant increase in the market share is attributed mostly to the rapidly increasing penetration of smartphones and internet users. This ongoing change in penetration is projected to increase the total internet user base to 657.8 million by the year 2023 which is at 553.7 million as of the year 2019 in India. Share of buyers using e-commerce retailing format in India is expected to increase to 50.03 percent by the year 2020 which is at 23.55 percent as of the year 2016 (Statista) [1]. The overall market size of the Indian Retail industry which was at 950 billion US$ in the year 2018 might cross 1.1 trillion US$ by the year 2020 (IBEF) [2].

E-commerce has been able to expand its market consistently in India. Owing to this new retailing format consumers now have the widest product assortment offered to them at discounted prices. E-commerce retailing format has probably crossed a key milestone in revolutionizing the

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Indian retail market, and this trend is expected to continue for many more years. As per one IBEF's December 2019 [2] report on Indian retailing, it is noted that the union government of India is also working on various ways to boost consumption in the rural market of India and e-commerce would play an important role in achieving this. The forecast also indicates that e-commerce retailing will be able to capture 7 percent of the overall Indian retail market by 2021.

In such a short period e-commerce retailing format in India reached to around 3 percent of the overall Indian retail market. Growth rate is more than double as compared to the brick-and-mortar stores. Available literature indicates to key reasons for this as being capable of building the trust of the consumers in online stores, they have successfully established their brands in the minds of the online shoppers through their 365 days discounts, deals, and low-price strategies. Even though it is very hard to build a sustainable business model using strategies mainly based on price wars, it is inevitable that the brick-and-mortar stores in India will have to ascertain specific strategies head-on to deal with this increasing loss of market share to online stores. Up till the emergence of online stores in India, brick-and-mortar retailers were following a season and occasion driven sale promotions prominently known as end-of-season sale and festive sale which accounted for close to 40 percent of their annual revenue. But, post the emergence of online stores in India, the majority of brick-and-mortar retailers in India are bewildered with continuous discounts, deals, sale promotion events, coupons being offered by the online stores throughout the year and they are not able to design appropriate sales promotion programmes.

2. LITERATURE REVIEW :

We have noted that for many the choice of store format was and is one of the important research subjects among many researchers beginning from the 70's of the 20th century. The authors of many of earlier studies - among others: Monroe & Guiltinan (1975) [3], Arnold, Oum & Tigert (1983) [4], Mason, Durand & Taylor (1983) [5], Keng & Ehrenberg (1984) [6], Louviere & Gaeth (1987) [7], Spiggle & Sewall (1987) [8], Dawson, Bloch & Ridgway (1990) [9], Burke et al (1992) [10], have studied to rationalize store choice using different approaches, models and frameworks with respect to internal and external factors to the consumer such as (a) store attributes, (b) situational factors, (c) consumers' households, (d) consumers' demographics, (e) consumers' shopping patterns, (f) consumers' attitudes toward stores, (g) implied importance and (h) weightage of price levels. It is also noted that most of the above said studies were carried on same store formats (supermarkets and discount stores).

Gupta and Cooper (1992) [11], have demonstrated that brand reputation plays an important role in creating consumer perceptions over discounting announcements. Hence discount level alone will not be able to determine the changes in consumers intent to buy more.

There also exist some studies examining the influence of retail pricing formats on shopping behaviour (Bell, Ho & Tang, 1998) [12], often if one store format has in general, higher prices than the other one.

Chandon et al. (2000) [13], suggested that the discount types and levels need to be relevant to the products/category to enhance consumer preference to buy more.

Shim et al. (2000) [14], using consumer's shopping behavioural intentions, established the size of three market segments (primarily Internet shopper, product-situation specific cross-shopper and primarily store-oriented shopper markets) for both the cognitive and sensory experiential product categories. One of the key recommendations from the researchers was that the retailers and mall developers should understand the greater importance of social influence on online shoppers and cross-shoppers, as compared to traditional store shoppers. Perhaps a competitive strategy could be utilized whereby promotions portray aspirational and/or peer members of Internet consumers describing their positive experiences as mall patrons.

Peter and Olson (2002) [15], preferences for retail channel and format choice within a particular channel depend on factors external to the consumer and internal ones. Those preferences

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are subject to change when important factors as changes in the economy (like economic slowdown, fall in consumers income) and retail industry (development of new sales channels and/or formats) become visible for consumers. External factors among others include perceived price level, physical effort to buy, amount of time needed to fulfil shopping tasks – most of the external factors are creating the perceived total cost of buying for the consumer. Among internal factors, there are i.e., consumer demographics and consumer personality manifesting in decision-making styles and perceived level of cognitive and emotional effort connected with shopping.

Bhatnagar, & Ratchford (2004) [16] represent interesting approaches but limited to non-durable goods. Exploring fixed and variable costs of shopping, including assumption about consumers preferring to shop at the minimum total cost, and different price levels between formats, they found conditions in which the store format choice would be optimal. Hardesty and Suter (2005) [17], post online retailing format emergence, consumers' expectations on lower priced products has increased.

Diwakar Gupta et al. (2006) [18]. The problem of setting prices for clearing retail inventories of fashion goods is a difficult task that is further exacerbated by the fact that markdowns enacted near the end of the selling season have a smaller impact on demand. In the research, they have presented discrete-time models for setting clearance prices in such an environment. When demand is deterministic, researchers compute optimal prices and show that decreasing reservation prices lead to declining optimal prices. When demand is stochastic and arbitrarily correlated across planning periods, researchers obtain bounds on the optimal expected revenue and on optimal prices. Researchers have also developed a heuristic procedure for finding near-optimal prices and test its accuracy through numerical experiments. These experiments revealed new insights for practitioners.

Mokhtarian and Tang (2009, 2011) [19], perceived channel characteristics are influencing the choice of channel for both phases of consumer decision making: information search and buying.

Sales promotion techniques are instruments that seek to increase sales of products and brands, usually in a short time (Wierenga & Soethoudt, 2010) [20], because they act in the consumer's mind as a benefit to him, creating thus consumer behaviour (Yusuf, 2010) [21]. The effectiveness and the importance of sales promotion in the market can be viewed when presenting the segment numbers. According to Teunter (2002) [22], over 20% of sales of products of some food branches occur through sales promotion activities. In a report quoted by Wierenga and Soethoudt (2010) [20], over 75% of spending on communication in the nondurable consumer goods segment between 1997 and 2004 in the United States were driven by sales promotion activities, while 25% were applied in other communication activities.

As stressed by some authors (D'Austous & Landreville, 2003 [23]; Haans & Gijsbrechts, 2011 [24]) there is still academic and managerial deficiencies on the deeper knowledge of the relationship of sales promotion with consumer behaviour and their effectiveness for the companies.

Dhruv et al. (2017) [25] identified one of the key components of their organizing framework for 'future of retailing' identified by them was 'visual display and merchandise offer decisions' along with other four components (1) technology and tools to facilitate decision making, (2) consumption and engagement, (3) big data collection and usage and (4) analytics and probability.

Ganesha, H.R. et al. (2020) [26], concluded that 'it is practically impossible to change consumers perspective towards a discount in favour of brick-and-mortar store as the same is widely influenced by a paradigm shift in the evolution of various modern retailing formats available now to consumers to buy required products. It was evident from their empirical research that brick-and-mortar retailer will no more be able to convert walk-ins into bills unless the discount is one of the key components of their selling proposition, but possibly retailer can analyse their sales data on a consistent basis to determine ideal levels of discount which can probably gain a competitive edge over online stores on the

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discount component and arrest such huge degrowth in their store profitability'.

Ganesha, H.R. et. al. (2020) [27], conducted eight short-term discounting experiments and compared the findings with ten years of empirical data and concluded that 'all levels of discounts and types of discounts could possible attract consumers to purchase more and in turn enhance overall store's revenue, but what is very important is the retailer's understanding of existing consumer base, their purchase history, their purchase behaviour, their response to different types and levels of discounts previously offered. Discounts if offered to select consumers on select product/category for a shorter period of time could possibly (a) attract only relevant consumers who were planning to purchase these products, (b) distract consumers for whom the product/category on discount offer is either irrelevant or already being bought, (c) create a perception in consumers mind about discount levels available at their brick-and-mortar store higher than that of an online store on a consistent basis, (d) negate the loss or reduced gross earnings in the discounted product/category through regular sales from non-discounted products/categories. And thereby (a) positively impacting the overall store level profits and (b) creating a sustainable competitive edge with online stores over the discount component'.

Past research carried out in the developed countries where the brick-and-mortar retailers have already gone through a phase of online store formats being made available to consumers and have provided many guidelines to brick-and-mortar retailers on various discounting and pricing frameworks for them to create promotional strategies to withstand discount strategies of online stores.

We could not find answers for (A) can we implement the recommendations of various researches carried out in developed countries in the Indian context? (B) is there an ideal (a) framework, (b) duration, (c) type, (d) timing and (e) advertising technique for long-term discounting strategies to enable brick-and-mortar retailers to design appropriate sales promotions to gain a competitive advantage over online retailing on the discount component. To find answers to these questions we decided to carry out multiple experiments across various types of long-term discounting frameworks to find answers to our key research questions.

3. OBJECTIVES :

Key objectives of this research were to;
(a) understand the change in overall consumer purchase pattern and store profitability across;
   a. discount types
   b. discount levels
   c. discount applicability/coverage
   d. pre-online stores emergence period
   e. post-online stores emergence period
(b) draw insights from multiple experimentations

4. METHODOLOGY :

Stage I: One organized brick-and-mortar retailer in India was selected who is having stores all over India across (a) mall stores, (b) high-street stores,(c) neighbourhood stores,(d) tier 1, 2 and 3 cities, (e) offering multiple-categories and multiple-brands at mid to high price positioning catering to pregnant women, new moms, babies, infants and kids up to 8 years. All the stores were exposed to multiple experiments.

Stage II: Data for all the stores was collected prior to experimentations (pre-test).

Stage III: Multiple discounting frameworks were experimented across all the stores over a period of twelve months (experimental phase).

Stage IV: Results obtained during the experimentation stage (post-test) analysed using appropriate statistical methods and compared with the pre-test period.

Stage V: The findings from these multiple experiments were compared with the results of empirical research previously carried out on the impact of changes in retailer and consumer perspective towards discount post emergence of online stores in India.

Stage VI: In this stage, insights and inferences from the research findings were used to propose a way forward for brick-and-mortar retailers to enable them to design appropriate discounting frameworks.

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5. KEY FINDINGS AND INSIGHTS :

Pre-online stores emergence;
- majority of discounting during an end-of-season sale
- spread over 30 to 45 days
- key objective was to liquidate aged inventory
- discount based on the age of the inventory, older the stock higher the discount level,
- exclusive sales preview of first 2 to 3 days for existing loyalty club members
- in-store offer signages
- communication of offer to existing consumer base through SMS on a weekly basis
- communication of offer to all potential consumers through above the line (ATL) channels
- benchmark for consumers used to be discount levels available at other brick-and-mortar retail stores
- discount component was not the key component of the selling proposition

Post-online stores emergence;
- discounting throughout the year
- key objective was to reduce shifting of consumers to online stores
- discounts are not based on the age of the inventory
- in-store offer signages
- communication of offer to existing consumer base through SMS on a weekly basis
- communication of offer to all potential consumers through above the line (ATL) channels
- benchmark for consumers is the discounts available at online stores
- discount component is the key component of the selling proposition

Experiment 1:
- all products in the store are eligible for discount offer
- spread over 35 days
- discount offer valid on all weekdays

- key objective was to have a competitive edge over online stores on the discount component of the selling proposition
- discounts are not based on the age of the inventory
- in-store offer signages
- communication of offer to an existing consumer base (entire) through SMS once in a week
- no use of above the line (ATL) channels for advertising of the discount offer
- benchmark for consumers is not available as the offer is customized
- discount component is the key component of consumer engagement/selling proposition

Experiment 2, 3, and 4:
- all products in the store are eligible for the discount offer but limited to a specific category
- spread over 25 days each
- key objective was to have a competitive edge over online stores on the discount component of selling proposition by advertising flat discounts on select old aged inventory
- in-store offer signages
- communication of offer to all the existing consumer base through SMS on a daily basis
- no use of above the line (ATL) channels for advertising of the discount offer
- benchmark for consumers is available as the offers are not customized
- discount component is the key component of consumer engagement/selling proposition

Experiment 5:
- only a specific daily essential product is eligible for discount offer
- spread over 82 days
- key objective was to have a competitive edge over online stores on discount component of similar products offered on the discounts at online stores
- discounts are not based on the age of the inventory but matched to discounts available at online stores

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- in-store offer signages
- communication of offer to existing select consumers chosen based on their life-stage through SMS
- no use of above the line (ATL) channels for advertising of the discount offer
- benchmark for consumers is available as the same product is offered on discount at online stores
- discount component is the key component of consumer engagement/selling proposition

Experiment 6:
- only a specific daily essential product is eligible for discount offer
- spread over 28 days
- key objective was to have a competitive edge over online stores on the discount component of similar products offered on discounts at online stores
- discounts are not based on the age of the inventory but doubled in in comparison to discount at online stores
- in-store offer signages
- communication of offer to existing select consumers chosen based on their life-stage through SMS
- no use of above the line (ATL) channels for advertising of the discount offer
- benchmark for consumers is available as the same product is offered on discount at online stores
- discount component is the key component of consumer engagement/selling proposition

Experiment 7:
- only a specific daily essential product is eligible for discount offer
- spread over 43 days
- key objective was to have a competitive edge over online stores on the discount

component of similar products offered on discounts at online stores
- discounts are not based on the age of the inventory but were kept just above in comparison to discount at online stores
- in-store offer signages
- communication of offer to existing select consumers chosen based on their life-stage through SMS
- no use of above the line (ATL) channels for advertising of the discount offer
- benchmark for consumers is available as the same product is offered on discount at online stores
- discount component is the key component of consumer engagement/selling proposition

Results of all the seven long-term discounting experiments as shown in tables 1, 2, 3 and 4 when compared with different periods indicate that the discount levels, discount types, discount duration, and discount coverage impact consumer attraction and overall store profitability levels. Some have a positive impact and some negative. It is important to note that, ten years of empirical data and these seven experimentations though indicate a significant positive correlation (0.407 at 0.01 level 2-tailed with Sig. value of 0.000) between discount and consumer attraction it also shows that the overall store profitability is significantly correlated negatively with discounts (-0.658 at 0.01 level 2-tailed with Sig. value of 0.054).

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Table 1: Percentage change over 'post-online' stores emergence across each key factor, types, levels and duration of discounting frameworks experimented.

Factors	Experiment 1 (All Products 35 Days)	Experiment 2,3 and 4 (Old Products 25 Days each)	Experiment 5 (Single Product 83 Days)	Experiment 6 (Single Product 28 Days)	Experiment 7 (Single Product 43 Days)
Average selling price	5%	1%	7%	3%	5%
Average transaction value	9%	5%	12%	3%	6%
Average basket size	3%	3%	4%	0%	0%
Discount per cent	-14%	6%	-31%	8%	-34%
Bills per day per square foot	4%	32%	14%	24%	32%
Sale quantity per day per square foot	7%	35%	18%	23%	32%
Discount value per day per square foot	-19%	30%	-26%	13%	-28%
Revenue per day per square foot	14%	38%	29%	29%	40%
Earning per day per square foot	-43%	-38%	-18%	-48%	-13%
Profit per day per square foot	-256%	-211%	-27%	-305%	21%

Table 2: Percentage change over 'no discount' period across each key factor, types, levels and duration of discounting frameworks experimented.

Factors	Experiment 1 (All Products 35 Days)	Experiment 2,3 and 4 (Old Products 25 Days each)	Experiment 5 (Single Product 83 Days)	Experiment 6 (Single Product 28 Days)	Experiment 7 (Single Product 43 Days)
Average selling price	-1%	-4%	1%	-3%	-1%
Average transaction value	4%	1%	8%	-1%	1%
Average basket size	5%	5%	7%	2%	3%
Discount per cent	95%	141%	58%	146%	49%
Bills per day per square foot	7%	35%	17%	28%	36%
Sale quantity per day per square foot	12%	42%	25%	30%	39%
Discount value per day per square foot	124%	259%	104%	214%	98%
Revenue per day per square foot	12%	36%	26%	27%	38%
Earning per day per square foot	-23%	-16%	10%	-30%	17%
Profit per day per square foot	-78%	-55%	36%	-103%	60%

Table 3: Percentage change across each key factor in experiment 7 (in which we offered long-term discount on a single daily essential product just above what online stores are offering on the same product) over other experiments 1,2,3 and 4.

Factors	Experiment 7 (Single Product, 43 Days, Just Above Online Discount)
Average selling price	2%
Average transaction value	0%
Average basket size	-2%
Discount per cent	-35%
Bills per day per square foot	6%
Sale quantity per day per square foot	3%
Discount value per day per square foot	-39%
Revenue per day per square foot	6%
Earning per day per square foot	43%
Profit per day per square foot	75%

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Table 4: Percentage change over last ten years means across each key factor, types, levels and duration of discounting frameworks.

Factors	Pre-Online (Offer on Old Stocks)		Post-Online (Offer on All Stocks)		Pre-Test (No Offer)		Experiment 1 (All Products 35 Days)		Experiment 2,3 and 4 (Old Products 25 Days each)		Experiment 5 (Single Product 83 Days)		Experiment 6 (Single Product 28 Days)		Experiment 7 (Single Product 43 Days)	
Average selling price	⬇	-3%	⬈	2%	⬆	8%	⬆	7%	➡	3%	⬆	9%	⬈	5%	⬈	6%
Average transaction value	⬇	-10%	➡	10%	⬈	14%	⬆	19%	⬈	15%	⬆	23%	⬈	13%	⬈	16%
Average basket size	⬇	-7%	⬈	8%	⬈	6%	⬆	11%	⬆	11%	⬆	13%	⬈	8%	⬈	9%
Discount per cent	⬇	-41%	⬆	60%	⬇	-30%	⬈	37%	⬆	69%	➡	11%	⬆	72%	➡	5%
Bills per day per square foot	⬇	-2%	⬇	0%	⬇	-3%	⬇	4%	⬆	31%	➡	14%	⬈	24%	⬆	32%
Sale quantity per day per square foot	⬇	-10%	⬈	8%	⬈	2%	➡	15%	⬆	45%	⬈	28%	⬈	33%	⬆	42%
Discount value per day per square foot	⬇	-53%	⬈	74%	⬇	-37%	➡	40%	⬆	126%	➡	28%	⬆	97%	➡	24%
Revenue per day per square foot	⬇	-12%	⬈	9%	⬈	11%	➡	24%	⬆	50%	⬆	40%	⬆	40%	⬆	53%
Earning per day per square foot	⬆	4%	⬆	3%	➡	-24%	⬇	-41%	⬈	-36%	⬈	-16%	⬇	-46%	⬈	-10%
Profit per day per square foot	⬆	487%	⬈	-380%	➡	-859%	⬇	-1608%	⬇	-1391%	➡	-510%	⬇	-1844%	⬈	-280%

Among seven experiments, we found significant variance between experiments (1, 2, 3 and 4) offering discounts on wider product/category assortment and experiments (5, 6 and 7) offering discount on a single product categorized as 'daily essential need item' by the retailer. Products under experiments 5, 6 and 7 were similar to online stores, i.e., same SKU from the same brand with the same original price, hence we were able to manipulate discount levels viz, (a) equal to the online store (experiment 6), (b) higher than the online store (experiment 7) and (c) just above the online store (experiment 8) and analyse the experiment results. Tables 5, 6, 7, 8 and 9 clearly indicate that offering discounts significantly higher than online stores might attract more consumers, but at the same time, it negatively impacts overall store profitability and average earnings per consumer. Even though matching and offering just above online discount levels have shown a positive impact on overall store profitability and average earnings per consumer, it is noted that offering discount levels just above the online store discount has shown higher levels of consumer attraction (number of consumers purchasing the product on offer) and acceptance (store visit frequency) of the fact that these types of offers are able to create a competitive edge over online stores especially on the discount component of selling/engagement proposition.

Table 5: Percentage of all customers shopped in the store during experimentation period; consumer type 1 - did not buy a single item of daily essential products offered on discount under experiment

Factors	Pre-Test	Experiment 5	Experiment 6	Experiment 7
Number of Consumers	85.65%	82.03%	78.88%	81.03%
% of Total Consumers	85.65%	82.03%	78.88%	81.03%
Sales	77.09%	67.25%	67.09%	68.24%
Average per Consumer	90.02%	82.01%	85.04%	84.20%
Total Bills	88.09%	65.19%	61.62%	64.43%
Average Sale per Bill	87.54%	103.15%	108.84%	105.90%
Average Bills per Consumer	102.84%	79.47%	78.12%	79.50%
Total Earning	77.24%	71.89%	68.12%	69.13%
Average Earning per Consumer	0.90%	0.78%	1.01%	1.13%

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Table 6: Percentage of all customers shopped in the store during the experimentation period; consumer type 2 - bought daily essential products offered on discount under experiment

Factors	Pre-Test	Experiment 5	Experiment 6	Experiment 7
Number of Consumers	14.35%	17.97%	21.12%	18.97%
% of Total Consumers	14.35%	17.97%	21.12%	18.97%
Sales	22.91%	32.75%	32.91%	31.76%
Average per Consumer	159.74%	182.27%	155.78%	167.44%
Total Bills	11.91%	34.81%	38.38%	35.57%
Average Sale per Bill	192.32%	94.07%	85.71%	89.26%
Average Bills per Consumer	83.06%	193.73%	181.70%	187.57%
Total Earning	22.76%	28.11%	31.88%	30.87%
Average Earning per Consumer	1.58%	1.39%	1.77%	2.15%

Table 7: Percentage of all customers shopped in the store during the experimentation period; consumer type 3(a) - bought only daily essential products offered on discount under experiment

Factors	Pre-Test	Experiment 5	Experiment 6	Experiment 7
Number of Consumers	2.65%	2.64%	3.39%	2.17%
% of total Single Daily Essential Product Consumers	18.49%	14.69%	16.05%	11.43%
Sales	0.87%	0.67%	1.20%	0.67%
Average per Consumer	32.83%	25.25%	35.35%	30.74%
Total Bills	2.02%	1.80%	2.26%	1.49%
Average Sale per Bill	43.06%	37.11%	52.95%	44.74%
Average Bills per Consumer	76.20%	68.08%	66.81%	68.71%
Total Earning	0.07%	-0.04%	-0.26%	0.05%
Average Earning per Consumer	2.86%	-0.01%	-0.09%	0.03%

Table 8: Percentage of all customers shopped in the store during the experimentation period; consumer type 3(b) - bought other products/categories along with daily essential products offered on discount under experiment

Factors	Pre-Test	Experiment 5	Experiment 6	Experiment 7
Number of Consumers	11.69%	15.33%	17.73%	16.80%
% of total Single Daily Essential Product Consumers	81.51%	85.31%	83.95%	88.57%
Sales	22.04%	32.08%	31.71%	31.09%
Average per Consumer	188.51%	209.30%	178.79%	185.07%
Total Bills	24.15%	33.01%	36.11%	34.09%
Average Sale per Bill	91.24%	97.17%	87.76%	91.21%
Average Bills per Consumer	206.55%	215.37%	203.66%	202.91%
Total Earning	22.68%	28.16%	32.14%	30.83%
Average Earning per Consumer	193.81%	183.62%	181.38%	183.33%

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Table 9: Comparison of consumer store visit (for purchase) frequency across different types of consumers and experiments.

Customer Type	Pre-Test	Experiment 5	Experiment 6	Experiment 7
All consumers	50 Days	22 Days	28 Days	24 Days
Type 1	23 Days	62 Days	29 Days	35 Days
Type 2	23 Days	62 Days	29 Days	35 Days
Type 3(a)	23 Days	62 Days	29 Days	35 Days
Type 3(b)	12 Days	23 Days	11 Days	14 Days

6. CONCLUSION :

With reference results of seven experiments and their comparison with past ten years empirical data along, it is clearly visible that, brick-and-mortar retailers need to include discount as one of the key components of selling/engagement proposition post the online stores emergence in India to create a competitive edge over online retailing format. All levels and types of discounts could possibly attract more consumers to the store and even increase their intent to purchase more and in turn, enhance overall store's revenue, but what is very important is the retailer's understanding of existing consumer base, their purchase history, their purchase behaviour, their response to different types, their life-stage needs, product/category usage frequencies and levels of discounts previously offered. Discounts if offered to select consumers on select product/category for a longer period of time which allows consumers to create favourable perceptions towards the store could possibly (a) attract only relevant consumers who were planning to purchase these products, (b) distract consumers for whom the product/category on discount offer is either irrelevant or already being bought, (c) create a perception in consumers mind about discount levels available at their brick-and-mortar store being usually higher than that of an online store on a consistent basis, (d) negate the loss or reduced gross earnings in the discounted product/category through regular sales from non-discounted products/categories. And thereby (a) positively impacting the overall store level profits and (b) creating a sustainable competitive edge with online stores over the discount component. It is recommended that the long-term discounting frameworks need to be framed keeping both internal and external factors in mind. Internal factors being (a) existing consumer base, (b) existing product and brand assortment (c) store personnel's ability to communicate such long-term discount offers and external factors being (a) various retailing formats/stores available for consumers to purchase similar products/brand, (b) selling proposition of similar products/brands at other retailing formats/stores and most importantly (c) retailer's control over such products/brands.

7. SUGGESTIONS TO BRICK-AND-MORTAR RETAILERS :

Based on this research outcome, we would like to suggest brick-and-mortar retailers that they need to clearly understand every other retail format's key business goal behind offering discounts to consumers. Few may be trying to capture the bigger market share, few may be trying to show exponential growth in the top line to attract more investors, few may be trying to wrap up their business and few may be hoping that all these consumers acquired based on discount as one of their key components of selling proposition are going to be loyal to their store. What is very important is the key business goal of your retailing format and business, clearly understand your consumers and their needs using both qualitative and quantitative methodologies and make strategies to create your own discounting framework/model to gain a competitive edge over any retailing formats on the discount component.

8. LIMITATIONS OF RESEARCH :

The main limitation of this research work is the coverage of the various stakeholders viz., consumers and retailers in experimenting with multiple long-term discounting frameworks. This might limit the generalizability of the

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research findings to other set of retailers and consumers. The second limitation would be the empirical validation is restricted to one retail format i.e., multi brand and multi category baby care stores in India and hence the generalizability of the findings and suggestions to other retail formats. However, it provides significant input regarding the ways to utilise these findings as all the findings have been derived from multiple experiments and validated with actual empirical transactional data across different periods.

9. SCOPE FOR FURTHER RESEARCH :

It is recommended that this research can further be extended to derive an ideal discounting framework/model for brick-and-mortar retailers to enable them to design appropriate sales promotional programmes to effectively deal with the change in consumer's perspective towards the discount.

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Appendices

Findings

Correlations :

Correlations

		Discount per cent	Bills per day per square foot
Discount per cent	Pearson Correlation	1	.407[**]
	Sig. (2-tailed)		.000
	N	113	113
Bills per day per square foot	Pearson Correlation	.407[**]	1
	Sig. (2-tailed)	.000	
	N	113	113

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

Correlations

		Discount per cent	Profit per day per square foot
Discount per cent	Pearson Correlation	1	-.658[**]
	Sig. (2-tailed)		.000
	N	113	113
Profit per day per square foot	Pearson Correlation	-.658[**]	1
	Sig. (2-tailed)	.000	
	N	113	113

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

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Discount per cent	.12577	113	.099818	.009390
	Bills per day per square foot	.01019	113	.001832	.000172
Pair 2	Discount per cent	.12577	113	.099818	.009390
	Profit per day per square foot	-.1411	113	1.38940	.13070

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Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Discount per cent & Bills per day per square foot	113	.407	.000
Pair 2	Discount per cent & Profit per day per square foot	113	-.658	.000

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Discount per cent - Bills per day per square foot	.115575	.099087	.009321	.097106	.134044	12.399	112	.000
Pair 2	Discount per cent - Profit per day per square foot	.266832	1.457046	.137067	-.004750	.538413	1.947	112	.054

Regression

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.769[a]	.591	.584	.89617	.591	79.607	2	110	.000

a. Predictors: (Constant), Bills per day per square foot, Discount per cent

b. Dependent Variable: Profit per day per square foot

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	127.867	2	63.934	79.607	.000[b]
	Residual	88.342	110	.803		
	Total	216.210	112			

a. Dependent Variable: Profit per day per square foot

b. Predictors: (Constant), Bills per day per square foot, Discount per cent

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	-2.046	.488		-4.193	.000	-3.012	-1.079			
	Discount per cent	-11.630	.929	-.836	-12.521	.000	-13.471	-9.790	-.658	-.767	-.763
	Bills per day per square foot	330.300	50.622	.435	6.525	.000	229.980	430.621	.095	.528	.398

a. Dependent Variable: Profit per day per square foot

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Coefficient Correlations[a]

Model			Bills per day per square foot	Discount per cent
1	Correlations	Bills per day per square foot	1.000	-.407
		Discount per cent	-.407	1.000
	Covariances	Bills per day per square foot	2562.572	-19.149
		Discount per cent	-19.149	.863

a. Dependent Variable: Profit per day per square foot

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-3.1621	1.8994	-.1411	1.06849	113
Residual	-2.51263	1.82842	.00000	.88813	113
Std. Predicted Value	-2.827	1.910	.000	1.000	113
Std. Residual	-2.804	2.040	.000	.991	113

a. Dependent Variable: Profit per day per square foot

Factor Analysis

Communalities

	Raw		Rescaled	
	Initial	Extraction	Initial	Extraction
Discount per cent	.010	.002	1.000	.204
Bills per day per square foot	3.355E-6	1.720E-7	1.000	.051
Average basket size (pieces)	.095	.006	1.000	.060
Average selling price (INR)	2235.681	2235.680	1.000	1.000
Revenue per day per square foot	11.233	.169	1.000	.015
Earning per day per square foot	1.881	.206	1.000	.110

Extraction Method: Principal Component Analysis.

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Total Variance Explained

	Component	Initial Eigenvalues[a]			Extraction Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Raw	1	2236.063	99.429	99.429	2236.063	99.429	99.429
	2	11.108	.494	99.923			
	3	1.681	.075	99.998			
	4	.045	.002	100.000			
	5	.003	.000	100.000			
	6	1.301E-7	5.783E-9	100.000			
Rescaled	1	2236.063	99.429	99.429	1.440	23.998	23.998
	2	11.108	.494	99.923			
	3	1.681	.075	99.998			
	4	.045	.002	100.000			
	5	.003	.000	100.000			
	6	1.301E-7	5.783E-9	100.000			

Extraction Method: Principal Component Analysis.

a. When analyzing a covariance matrix, the initial eigenvalues are the same across the raw and rescaled solution.

Component Matrix[a]

	Raw Component 1	Rescaled Component 1
Discount per cent	-.045	-.451
Bills per day per square foot	.000	-.226
Average basket size (pieces)	-.076	-.246
Average selling price (INR)	47.283	1.000
Revenue per day per square foot	.411	.123
Earning per day per square foot	.454	.331

Extraction Method: Principal Component Analysis.

a. 1 components extracted.