


# Promotional Strategies for Organized Retail: A Relook With Changing Customer Buying Behavior

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## ABSTRACT

Organized retailing in India is going through a paradigm shift, what was once a family business is now run by professionals. They use mass media strategies to catch customers. But those days are gone when one advertisement can be used for marketing throughout the country. This research is carried out in Punjab to understand the need for change in promotional strategies. This paper proposes four new promotional strategies to cater to the need of the customers in a better way. The strategies purposed are pricing strategies, promotion strategies, push strategies, and technology and innovation strategies.

## KEYWORDS

Consumer Behavior, Information Technology, Paradigm Shifts, Promotion Strategies

## INTRODUCTION

The scope of retail is increasing in our country. Indian retail is moving from family-managed to professionally managed (Chaudhury 2017). With the growth of FDI, more and more international brands are entering the Indian market (IBEF 2019). This is benefitting the Indian customers as well as the farmers. Indian retail is moving from a traditional to a modern format wherein the consumer has the option of browsing through the goods and choosing the goods of his/her choice (Sapna Agarwal 2018).

Retail is the largest industry in India, contributing as much as over 10 percent of the country's GDP and approximately eight percent of the job opportunities. The organized retail sector in India is expanding at a very fast pace and the state is on the verge of a big boom (Viswanadham 2018). The opening of organized brands like Big Bazaar, Reliance Market, More, Easy Day, etc. in the interiors of small towns is itself witnessing a bright future. However, there are certain problems which are concerning the growth of this sector which would have otherwise flourished like anything till now. Hence, it has become pertinent to identify factors creating problems in organized retailing in India.

Retailing is the largest creator of jobs and is one of the largest industries in India. The impact of liberalization and globalization which led to a rise in the high per capita income of the consumers in India has led the giants of FMCG to think of India as their destination (Mishra, 2008). The retail industry in India is in the form of small unorganized, in the form of small shops led by a single owner. But, in the past, retail has seen a huge change in the organization of the retailing sector in India. India is a retail industry with outlets of more than 1400000 and now it is becoming the largest retail destination (Uniyal and Sinha, 2007).

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## LITERATURE REVIEW

Because of the expanding utilization of new advancements in retailing, buyer shopping propensities and desires are additionally evolving. Another multi-gadget, the multiscreen shopper has arisen who is better educated and requests omnichannel brands. The examination has indicated that omnichannel customers are developing worldwide marvel (Schlager and Maas, 2013).

Clients anticipate a steady, uniform, and coordinated help or experience, paying little mind to the channel they use; they are happy to move consistently between channels—conventional store, on the web, and portable—contingent upon their inclinations, their gadget to perform look, think about items, request guidance, or search for less expensive choices during their shopping venture to exploit the advantages offered by each channel (Yurova et al., in press). Moreover, omnichannel shoppers ordinarily accept that they find out about a buy than the salesmen and see themselves as having more power over the business experience (Rippé et al., 2015).

Notwithstanding the expansion recorded in exploration on data and correspondence innovation (ICT) and multichannel, it is essential to keep researching in the field of omnichannel customer conduct (Neslin et al., 2014; Verhoef et al., 2015) and, particularly, to decide how shoppers' mentalities toward innovation impact the buying choice cycle in the new setting (Escobar-Rodríguez and Carvajal-Trujillo, 2014).

What's more, the omnichannel climate places expanding accentuation on the transaction among channels and brands (Verhoef et al., 2015). Neslin et al. (2014) portray different buy courses to show how this exchange functions. Consequently, not exclusively in the omnichannel world expanding the extent of channels, however, it likewise incorporates the thought of client brand-retail channel collaborations.

Another significant change is that the various channels are obscuring together as the character limits that once isolated them start to vanish. They are subsequently utilized consistently and conversely during the pursuit, buy, and post-buy cycle, and it is troublesome or essentially unimaginable for firms to control this utilization (Verhoef et al., 2015).

## RESEARCH OBJECTIVES

The study has taken the following objective:

- To study the impact of demographic factor Age on customer buying behavior towards organized retailing
- To propose promotional strategies for organized retailing based on customer buying behavior.

## METHODOLOGY

### Sample

The present study is descriptive in an approach based on primary data. The researcher has selected a total of 480 customers from the districts of India. Criteria for the selection of respondents were based on demographic profile and based on the concentration of density of retail outlets in natural regions of India in the scope of the study. Since the respondents were those individuals who are visiting the retail outlets, the focus of the study on these areas helped us in getting reliable results.

### Instrumentation

The instrument used to obtain the quantitative data was a survey. For the convenience of the sample, a self-structured questionnaire has been used for collecting the data from regions of India. The questionnaire has been tested for reliability. The overall reliability of the questionnaire as depicted by Cronbach alpha is 0.805. The study used factor analysis and ANOVA. The demographic profile of customers based on age is depicted in Figure 1.

## RESULTS

Table 1 shows, Factors the analysis was applied to statements to know customers buying behavior towards organized retail which reduces the number of variables into six factors. These six factors account for a total variance of 54.57 percent.

Figure 1. Demographic profile of customers on the basis of age

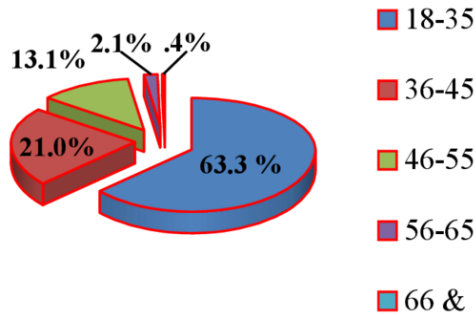


Table 1. Descriptive statistics: Factor analysis perceived factors for customers' buying behavior

Factor	Factor Name	Statements	Factor Loading	Communalities
F1	Product Variety & Quality	1. Liking organized retail stores for the purchase of products.	.59	.51
		2. Availability of a high variety of products.	.48	.57
		3. Attractive display and independence to choose	.42	.57
		4. Availability of best-quality products at comparatively low prices.	.63	.50
F2	Pricing	1. Availability of goods at comparatively low prices.	.68	.57
		2. Availability of fixed price	.74	.60
F3	Social	1. Buying with reference by family, friends	.49	.58
		2. Store as per Lifestyle and Personality	.49	.67
		3. Satisfaction creates more visits to store	.61	.53
F4	Ambiance	1. The ease of movement inside the retail store makes a customer's shopping experience better.	.66	.51
		2. Inside a retail store, Light music and good ambiance with proper ventilation/air conditioning make the shopping experience better.	.65	.53
F5	Facilities	1. Availability of adequate and secured parking facility at the entrance of the store.	.62	.53
		2. Presence of proper directional/instructional signs	.51	.53
		3. Efficient availability of drinking water and facility of Washrooms.	.66	.53
		4. Cleanliness and hygiene Factor.	.56	.59
F6	Human Resources	1. Availability of aware, well conversant and friendly receptionist/staff member at entrance	.55	.53
		2. Friendliness of employees	.72	.65
		3. Helpful, professional, and well-dressed employees	.61	.58

After factor analysis, the study used ANOVA analysis to know if there is a significant difference between customers of different age groups and factors influencing customers' buying behavior towards organized retail stores.

**Null Hypothesis (H<sub>0</sub>):** There is Age-wise no significant difference among factors influencing customers buying behavior.

Table 2 shows ANOVA results between Age and Factors Influencing Customers' Buying Behavior at a significant level of 5 percent. The results show that in the case of the pricing factor and human resources factor significance level is less than 5 percent (i.e.  $p < 0.05$ ), which means a pricing factor and human resources factor are not statistically significant at a 5 percent level of significance. Hence the null hypothesis (H<sub>0</sub>) that there is age-wise no significant difference among factors influencing customers buying behavior is rejected only in the case of two factors (Pricing & Human resources) and accepted for all other factors.

The mean value of perceived importance regarding the buying behavior of respondents from different Age Groups based on Analysis of variance (ANOVA) is presented in Table 3. Ages have been categorized into five categories i.e. 18-35 years, 36-45 years, 46-55 years, 56-65 years, and 66 years & above.

From **Table 3** it is clear the age group 18-35 and 36-45 is much more responsive regarding the pricing factor in comparison to other age group. Higher age groups have a stronger view about factors in human resources i.e. friendliness of employees compared to other age groups.

**Table 2. ANOVA between age and factors influencing customers' buying behavior**

Factors		Sum of Squares	df	Mean Square	F	Sig.
F1. Product Variety & Quality	Between Groups	.61	4	.15	.15	.96
	Within Groups	478.38	475	1.00		
	Total	479.00	479			
F2. Pricing	Between Groups	10.03	4	2.50	2.54	.04*
	Within Groups	468.96	475	.98		
	Total	479.00	479			
F3. Social	Between Groups	6.86	4	1.71	1.72	.14
	Within Groups	472.13	475	.99		
	Total	479.00	479			
F4. Ambiance	Between Groups	1.33	4	.33	.33	.85
	Within Groups	477.66	475	1.00		
	Total	479.00	479			
F5. Facilities	Between Groups	3.68	4	.92	.92	.45
	Within Groups	475.31	475	1.00		
	Total	479.00	479			
F6. Human Resources	Between Groups	17.29	4	4.32	4.44	.00*
	Within Groups	461.70	475	.97		
	Total	479.00	479			

\* Significant at a 5 percent level

Table 3. Buying behavior of customers concerning their age groups

Factors	Mean Score				
	18-35 Years	18-35 Years	18-35 Years	18-35 Years	18-35 Years
F2. Pricing	4.06	4.06	4	3.95	3.75
F6. Human Resources	4.10	4.13	4.04	4.13	4.17

## PROPOSED IT-ENABLED PROMOTIONAL STRATEGIES

Figure 2. Framework for organized retail and promotional strategies



### PRICING STRATEGIES

**Low Price Points:** The retailers should notice that with the rising incomes, a large number of middle-class customers will be attracted to buying branded and quality products. Though their buying capacity increases but in a limited way only. They want to enhance their standard of living but within limited means only. So, retailers have to keep the price point low to attract such customers. They have to develop a low-cost but reasonably high-quality product to offer this segment. This middle-class segment has other compelling priorities also to spend money on like clothing, education of their children, housing, etc. so they prefer to spend a little more towards quality

and brand but they avoid high-end brands with high price tags. The retailers should innovate reasonable and acceptable good quality products with a low price tag for this market.

**Lowest Price Challenge:** The customer who visits an organized store desires that they should get the product at the lowest price. They usually encounter the flyers/pamphlet of different stores quoting the low price of the product. If they get the flyer/pamphlet before the purchase they intend to buy from the store which is offering the product at the lowest price. But if they receive the flyer/pamphlet after the purchase they become doubtful towards the retail store and their loyalty to a particular store is shaken. In countries like USA and Canada, most of the stores offer the lowest price challenge where they offer the customer the lowest price of the product and ask the customers to bring any flyer/pamphlet of competitor's store offering prices lower than theirs. If the price of the competitors is lower than theirs then is paid with the difference of money along with other rewards. Organized retailers in the sector can start such type of '*Lowest Price Challenge*' to attract more customers to their retail stores as well as convert the increased number of customers into loyal customers.

**Appropriate Unit Size and Price:** The retailers attract usually middle-class customers. There are two categories of middle-class customers. One category buys the smallest unit at a moment because they don't afford large units or multiple units. The other category is ready to buy large units or multiple units if they get some bargain. So, retailers should offer such unit sizes which are suitable for their target customers. Reliance Market is already using a similar type of strategy. They have different prices for one unit and two/three units.

## PROMOTIONAL STRATEGIES

**Several Promotional Tools:** Retailers should use different and new discount schemes every time. Even these stores can use different schemes for different segments, as in a study Researchers have found that business-class customers are having no time to spend at these stores, they always want big discounts to come at organized stores, so while seeing the taste of each customer's schemes can be launched accordingly.

For example, Reliance Market is mostly using a promotion strategy i.e. 1 kg Sugar at Rs. 25 only at a minimum purchase of Rs. 500/-. It attracts sales once only after that customer gets fed up with this type of same offer. Stores should give innovative and new schemes every time.

**Quality Private Labelling:** Private labels are the retailer's brands which they create by producing or outsourcing the products. The cost of branding Private Labels is always less than the other high-brand value products. Though it is a little difficult to create the branding for Private Label and convince the customer for buying the Private Label Products in competition to High Brand Value Products. Usually, retailers offer Private Labels bundled with other branded products or at attractive/lower prices in comparison to a branded product. Organized retailers should create quality Private Labels to increase their market share and increase their profit share.

**Strong Distribution Network:** There are two types of customers - Target Customers and under-served customers. Retailers shouldn't approach under-served customers in the same way they would come close to target consumers because their needs vary. They should offer under-served customers a new and different product range.

**Additional Services Like Home Delivery:** In the case of FMCG products the customers visit the stores and purchase the desired products. Many customers don't visit organized stores because they don't provide home delivery. Such type of customers visits unorganized retail stores which

happily provide free home delivery of purchased items. Organized retail stores can attract more customers if they start providing their customers with home delivery of purchased items.

## **PUSH STRATEGIES**

**Meet the Needs of the Rising Young Generation:** India is the only country in the world that has a large population of young people in the age group of 18 years to 35 years. This segment of young people has aspirations that are comparable with the youth aspirations of developed countries. They want to eat the same food variety as the youth in developed countries are having. Indian youth want to wear the latest fashion clothing as their counterparts in developed countries are wearing. So the retailers in India have to focus on meeting the needs of this segment. They have to study the food consumption pattern of developed countries and offer indigenized versions of food. They have to keep a check on buying capacity of this segment. Similarly in the clothing and apparel sector, the retailers have to keep in mind the latest fashion trends and develop and produce low-cost but high in fashion value products.

**Meet the Needs of the Aspiring Middle Class:** It is said rightly that India is fast becoming a country of the middle class. As job opportunities are growing in the country and more people are getting jobs, a bigger section of the population is shifting from the lower class to the middle class. An increasing number of jobs available for females and the large number of working females is also fuelling this growth. So as a result of double income or more income, the average middle is spending more on retail products, especially the Fast Moving Consumable segment goods. Retailers should focus on the rising number of middle-class Indians in terms of growing their businesses. The middle class spends a large part of their income on the FMCG segment only. They are willing to spend more for trying a new or better product. They are also ready to spend money to buy a product that can be used as an enhanced living standard statement. Compared to the Western world where even the lowest category of the population is comfortable buying high-quality FMCG products, In India high quality FMCG products were affordable to the elite and high-income group persons only. So with rising income the Indian middle class try their hands on branded and quality FMCG products that they were not able to buy earlier.

**Building Brand Loyalty in New Customers:** The branding takes its own time. As the retailers have to launch new brands with low cost and reasonable and acceptable good quality, the customer awareness towards these brands would be lower. So they have to start their brand-building exercises aggressively so that they may get loyal customers. It is always difficult to make a customer ready for buying a new brand, then repurchasing the same brand and adapting it. Brand loyalty is the stage for which the retailers vie. Once the customer becomes loyal to the brand he/she himself/herself purchases the brand products as well as recommends the brand to others and acts as a brand ambassador. It is not easy to make a customer brand loyal, but moving step by step and making the customer satisfied will lead to the stage of customers becoming loyal to the brand. So retailers should focus on making more and more customers loyal to their brands and products.

**Adapting to a Fast-Changing Market Environment:** Retailers should adapt to the fast-changing environment in the market. In FMCG products, the customer taste changes rapidly. For example, Indian customers want to try the international food taste. Now few retail stores have started stocking food items and ingredients of Italian, Chinese, American, and Mexican foods. If a retailer is not able to adapt to the changes and can't offer the product according to the latest trend, the customers will start ignoring it and will shift to another store that offers such items. Gone are the days when customers use to develop their tastes according to the availability of products. Now the retailer has to offer according to customers' tastes only.

## TECHNOLOGY AND INNOVATIONS

**Interactive Touch Screens:** The major problem faced by customers while shopping from organized retail stores is no proper information about the availability of products in various sections of stores and no proper staff for guiding the same. The best possible solution to this is organized stores can use the displays to give proper information to customers regarding displays of products in each section as these stores are already having proper series of codes of products placed in various racks of various sections they can just share the same info at displays in this way problem of shortage of trained manpower can also be resolved.

**Retail Mobility Solution:** Today's market is purely customer-oriented marketing, so retailers should try to take suggestions from their customers regarding improvements in stores. There should be feedback from customers and online complaint & review options. In this way, make customers are more participative in the growth of organized retail.

**Online Promotion:** At present organized stores are sending alerts to customers regarding promotional discounts, but this can be improved by doing promotions online. Retailers can collect information on specific purchases of each customer by creating member ID Cards for customers. Once they have created member ID Cards for each customer, then they can record every bill of purchase by the specific customer in their IDs after that checking the regularly purchased products, retailers can send them online alerts regarding the discount schemes on specifically their regularly demanded products. This can create more demand and promotion will be as per customers' needs and useful for the customer. Instead of ignoring the alerts sent by organized retail stores, customers will start reading them carefully.

**Innovative USP:** The minds of the customers are very sensitive towards any box presentation and they retain any unique type of promotional activity in their minds for a long. Innovation is the most important happening in this competitive world of business. Customer is lured to buy product or services which have different type of appeal compared to those already present in the market. Similarly, in the retail sector, the retailers should devise some innovative Unique Selling Proposition (USP) which is different from other retailers and positioned in the minds of the customers/buyers. The retailer should invest in the innovative type of strategy after thorough study and investigation so that the investment should not go waste and the retailer can reap the benefits of it for a longer period.

**Online Selling:** Now a day's online stores are becoming more popular due to many reasons. It has been observed that during the festive season or near Diwali/Christmas the footfalls at offline stores have been reduced considerably. The future belongs to online selling. It has numerous benefits. The cost of *store infrastructure, employees, merchandising, display, parking facilities, and other amenities* at the store will not be required. It is evident from the great success of Flipkart, Snapdeal, Mynta, Amazon, eBay, etc. Though many online FMCG products are not available the trend has started catching up in the Metro cities. The other big advantage is that the customer can purchase the products of their choice at a lesser price even during off hours while sitting in the comfort at home.

The retailer should combine online and offline ways, where it will attract a large number of customers in both models. Customers who don't have time to visit and chose will be attracted to the online model while a customer who prefers the physical presence would opt for the offline store. Even there will be such clientele which will use both types of facilities. It will help the retailer in reducing the overall cost of store operation and infrastructure.

**Online Customer Support:** The retail stores in India don't provide online support regarding the product variety, price, location, and availability of the items in the store. In other countries, retail stores manage a proper website with full information regarding product variety, price, availability,



etc. Even these websites provide complete information regarding promotional offers, seasonal offers, and other discounts. The customers visit the website of the retail store before visiting the stores. They choose on the internet only before their real visit. It prepares the mind of the customer before visiting the store and saves their precious time. On the other side, it gives an advantage to the retailer as many customers take some time in making up their minds and during the short visit to the store, they are unable to do so. The unsure customers usually waste their time as well as the time of the sales executive.

**Scan as You Shop:** In most of the developed countries where organized retail stores are present for the last few decades, the store and customer believes in transparency. The retail stores at the billing counter have large size displays separately for a customer which display the proper name, size, weight, quantity, and price of the item being billed so that the customer can be involved in the billing process actively. The benefit is that the customer doesn't doubt the item or price. It also enables the customer to segregate the unwanted/doubtful item immediately during the billing only and saves the time of the billing executive.

The retail stores can use the trolleys with a calculator which keeps on calculating the total values of products lying in the trolley. It will help the customer to keep a check on their budget and avoid the purchase of unusable items.

Even most of the retail stores in the USA and Canada provide a *large-size calculator* just before the billing counter which helps a customer in calculating the total value of products to be billed. The customer approaches the billing executive with the exact amount to be paid and it *reduces the time taken by the customer* to pull out money. It also helps the customer in preparing the mind for the total worth of products to be purchased and avoids irritating discussions at the billing counter. It has been observed that while purchasing at a retail store the customers are not prepared with change and with this technique, the *time taken per customer may reduce* considerably.

## CONCLUSION

This study explores the problems faced by organized retailers in the Indian market and then suggested promotional strategies, pricing strategies, push strategies, and technology and innovations for the promotion of organized retail in India and their important role in enhancing the sales of organized retail. This research will help retail managers in many ways and will help them enhance their business in the retail world.

## REFERENCES

- Agarwal, R., & Prasad, J. (1999). Are Individual Differences Germane to the Acceptance of New Information Technologies? *Decision Sciences*, 30(2), 361–391. doi:10.1111/j.1540-5915.1999.tb01614.x
- Ali, J., Kapoor, S., & Moorthy, J. (2010). Buying behavior of consumers for food products in an emerging economy. *British Food Journal*, 112(2), 109–124. doi:10.1108/00070701011018806
- Bansal, H. S., & Voyer, P. A. (2000). Word-of-mouth processes within a services purchase decision context. *Journal of Service Research*, 3(2), 166–177. doi:10.1177/109467050032005
- Barak, B. (1998). Cognitive age: A new multidimensional approach to measuring age identity. *International Journal of Aging & Human Development*, 25(2), 109–127. doi:10.2190/RR3M-VQT0-B9LL-GQDM PMID:3436682
- Bhardwaj, R. K., & Makkar, U. (2007). Retail Revolution- Emerging Challenges and Issues. *J. IMS Group*, 4(2), 9–12.
- Black, H. G., & Kelley, S. W. (2009). A storytelling perspective on online customer reviews reporting service failure and recovery. *Journal of Travel & Tourism Marketing*, 26(2), 169–179. doi:10.1080/10548400902864768
- Erdem, O., Oumlil, A. B., & Tuncalp, S. (1999). Consumer values and the importance of store attributes. *International Journal of Retail & Distribution Management*, 27(4), 137–144. doi:10.1108/09590559910268435
- Goyal, B., & Aggarwal, M. (2009). Organized retailing in India- An empirical study of appropriate formats and expected trends. *Global J. Bus. Res.*, 3(2), 77–83.
- Halepete, J., Seshadri, K. V., & Park, S. C. (2008). Wal-Mart in India: Success or Failure? *International Journal of Retail & Distribution Management*, 36(9), 701–713. doi:10.1108/09590550810890948
- Hino, H. (2010). Antecedents of supermarket formats' Adoption and usage: A study in the context of non-western customers. *Journal of Retailing and Consumer Services*, 17(1), 61–72. doi:10.1016/j.jretconser.2009.09.005
- Jackson, V., Stoel, S., & Brantley, A. (2011). Mall attributes and shopping value: Differences by gender and generational cohort. *Journal of Retailing and Consumer Services*, 18(5), 1–9. doi:10.1016/j.jretconser.2010.08.002
- Jain, R., & Bagdare, S. (2009). Determinants of Customer Experience in New Format Retail Stores. *Journal of Marketing Communications*, 5(2), 34–44.
- Jasola, M. (2007). Emerging Trends in Retail Sector. *J. IMS Group*, 4(2), 22–28.
- Kotler, P. (2006). *Marketing Management. Prentice Hall of India Private Limited.*
- Lather, A. S., & Kaur, T. (2006). Shopping Malls: New Retail Formats keeping pace with the shoppers' mood. *J. Indian Manage. Strateg.*, 11(4), 22–27.
- Mittal, A., & Mittal, R. (2008). Store Choice in the Emerging Indian Apparel Retail Market: An Empirical Analysis. *IBSU Sci. J.*, 2(2), 21–46.
- Moschis, G. P. (2003). Marketing to older adults: An updated overview of present knowledge and practice. *Journal of Consumer Marketing*, 20(6), 516–525. doi:10.1108/07363760310499093
- Myers, H., & Lumbers, M. (2008). Understanding older shoppers: A phenomenological investigation. *Journal of Consumer Marketing*, 25(5), 294–301. doi:10.1108/07363760810890525
- Popkowski, L., Peter, T., & Timmermans, H. (2001). Experimental choice analysis of shopping strategies. *J. Ret.*, 77(4), 493–509.
- Singh, A., Jain, A., & Singla, B. (2019). Technological Advancement-Based Paradigm Shift: A Focus Shift from Large Screen to Small Screen. *International Journal of Innovative Technology and Exploring Engineering*, 8(10), 48–53. doi:10.35940/ijitee.I8613.0881019
- Singh, A., Singla, B. & Sharma, S. (2020). Analyzing the service quality of banks in Punjab. *Test Engineering and Management*, 82(1).

Singla, B., Sharma, S., & Singh, A. (2020). Sales Promotion Tactics in Retailing: Fair vs Unfair. *International Journal of Psychosocial Rehabilitation*, 24(6).

Singla, B., Sharma, S., & Singh, A. (2020). Information and communication technology enabled rural organized retail. *International Journal of Control and Automation*, 13(2).

Singla, B., & Singh, A. (2019). Contract Manufacturing: The Boon for Developing Economies. *International Journal of Innovative Technology and Exploring Engineering*, 8(12), 367–370. doi:10.35940/ijitee.L3281.1081219

Singla, B., & Singh, A. (2020). An Initiative to Green Information Technology. *International Journal of Advanced Science and Technology*, 29(4).