
Market Conduct of Private and Public Sector Real Estate Developers in Chandigarh and its Neighbouring Towns and Cities

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Abstract:

The present paper pertains to the Conduct aspect of Structure Conduct Performance Paradigm which was initially given by Mason and popularized by Bain and developed over a period of time by various schools of thought. Conduct holds a pivotal position in amongst the three. The present paper aims to analyses the conduct of both Public and Private sector real estate developers across Chandigarh and its Neighboring Towns and Cities. The paper has made use of primary data analysis to derive the results to define if the developers fared well on the conduct aspect. The study finds that the developers have exhibited appreciably good conduct.

1.Introduction:

The structure-conduct-performance (SCP) framework, which has formed the basis of a large volume of literature in industrial organization, was first formalized by Bain in the 1950's. This framework relates industry performance (P) to its structure (S) via the conduct (C) of firms within it. Bain attempted to identify a systematic relationship between structure and conduct that would explain the relation between structure and performance. Much of the subsequent industrial organization literature has attempted either to build on this broad framework or to suggest certain modifications to it. As a consequence of these critiques, the SCP paradigm could no longer be seen as a narrow one way relationship between structure and performance. The modified SCP as we shall call it takes the inter relationships between S, C and P into account. For example the traditional SCP paradigm was the brain child of the Harvard school of thought and with its empirical work involving the identification of correlations between industry structure and performance it became popular in 1940-60. According to the SCP paradigm has a direct short term impact on the market structure which further has an influence on the conduct and conduct in turn affects the performance.

Market structure

A market can be defined as a set of buyers and sellers who through their interaction determine the price of a good or set of goods. The main criteria's that actually determine the market structure consists of the number of agents in the market, both buyers and sellers, their strength of negotiation, in terms of ability to set a common price, the degree of concentration among them, the degree of differentiation and uniqueness of product and the ease of entering and exiting the market. Different kinds of market structures are:

Perfect competition: Perfect competition can be defined as the market where most efficient techniques are used to produce the goods. But such a market is considered to be an unrealistic one.

Imperfect competition: In this market sellers and buyers both can influence the determination of the price of goods, leading to loss in efficiency. Imperfect competition includes market structures such as:

-Monopoly: It is the opposite of perfect competition. It comprises of a single seller who will therefore have full power to set prices.

-Oligopoly: In this case, a few large numbers of firms offer products. However, the number of sellers cannot determine the perfect competition prices. Duopolies analysis is done to study oligopoly.

-Monopolistic competition: A high number of firms producing similar goods which are seen as unique due to differentiation and it will also allow prices to be higher than its marginal cost. It is the main characteristic of monopolistic competition. Hence, each producer is considered as a monopoly because of differentiation but the whole market will be taken as competitive because the degree of differentiation cannot solely undermine the possibility of substitution effects.

-Monopsony: It is almost similar to monopoly, but here many firms will be selling products, but only one buyer which is the monopolist, will have full power when negotiating prices.

-Oligopoly: It is similar to oligopolies, but it is the case with buyers. Sellers deal with the increased negotiating power of the only few selected buyers in the market called the oligopsonists.

Conduct

Market conduct refers to the patterns of behaviour that are followed by enterprises in adapting or adjusting to the markets in which they sell (or buy). If the firms are sellers, market conduct encompasses mainly:

1. The price policies of the firms whether they are acting individually or collectively.
2. The process or mechanism of cross adaptation, interaction and coordination of the policies of competing sellers in any market. For example in the case of duopoly where there are only two competing firms and both need to maximize their profit. Their profit will depend on their conduct. They may join together and share the total profits in some mutually arrived agreement or they may be involved in games of price discrimination like price cuts. There are a few more tactics followed by the firms like advertising expenditures, pricing strategies, R&D expenditure, diversification etc. The entire process of reacting to the market situation in pursuit of the desired goal is called 'market conduct'.

Performance

The performance of firms can be measured in terms of their productive and allocative efficiency. The inputs and outputs have to be related to each other so as to measure the performance of firms. This is one of the reasons why no specific technique for measuring efficiency has been generally accepted and why there are so many differences in the measured efficiency.

In general there are two broad strands of examining the financial performance of an enterprise, viz., the stock market approach and the profitability. The stock market approach applies valuations in the stock market so as to determine the financial performance of an enterprise. It is based on the assumption that the stock market is efficient and assesses performance in terms of changes in share prices.

Profitability approach uses three indices of profitability viz. the ratio of profit before interest and taxes (PBIT) to total income, the ratio of PBIT to gross fixed assets, and the ratio of PBIT to capital employed.

Market Conduct

Literature defines conduct as "the behaviour of the firms in a market: to decisions firms make and to the way in which the decisions are taken" (Hazersloot, 2013). Conduct is thus how a firm behaves with respect to its advertising strategies, reaction to "what rivals do", "collusion and other means of attempting to erect entry barriers" (Coiacetto, 2006).

Conduct is about innovation, a firm's product strategies, amount of advertising or selling intensity, research and development, merger and co-operation, and many more (Grigorova et al., 2008; Mu, 2014 Sahoo & Mishra, 2012 and Tung et al., 2010). We can call these as the variables of conduct, namely: selling efforts (Sahoo & Mishra, 2012) which include advertisement, Research & Development conduct, Mergers and Co-operation conduct (MU, 2014), pricing behaviour, legal conduct, product strategies, collusion etc (Hazersloot, 2013; MU, 2014 and Sahoo& Mishra, 2012).

In the present paper an attempt has been made to study the strategic behavior of the real estate developers as measured by the following ten broad dimensions of the conduct. A structured questionnaire was designed in which various statements were asked from the respondents. The respondents consisted of only those people who had purchased the house in the last five years. These respondents were asked to give their opinion about their experiences regarding a particular dimension of conduct is concerned as well as what was expected from that dimension of the conduct. The answers to the question were to be marked on a five point likert scale. The various items pertaining to each of these ten broad categories of conduct have been listed below.

a. Product

According to Singh, M. (2012), product is that “physical product or service for which a consumer is ready to pay”. Product has also been defined as “a physical object that is sold and has a palpable characteristic, a complex set of benefits that can be used to meet customer needs” (Pour et al., 2013). The following items were used to analyse conduct on the product parameter: the interiors of the house constructed by the real estate developer are visually appealing; the real estate developer uses superior quality of materials and items in the construction of houses; the items used in the houses constructed by the real estate developer are easily repairable; the items used in the houses constructed by the real estate developer are easily replaceable; the real estate developer provides luxuriously sophisticated homes; water harvesting techniques are deployed in the real estate establishments by the real estate developer; environment friendly materials are used in the construction by the real estate developer.

b. Price

Oxford Dictionary defines price as “the amount of money expected, required, or given in payment for something”. It is the exchange value of the product, the first P of the marketing mix. According to Singh, M. (2012), “price is the amount a customer pays for a product”. Economic Times defines price as what can be called as “the value that is put for a product”. Pricing decision is considered to be one of the most critical decisions taken by a firm. This is because it is the only decision which brings direct revenues to the firm and is the sole pillar to its economy’s survival.

The study uses the following items to analyse price as a dimension of conduct: the real estate developer charges more as compared to the quality of benefits it provides; property rates of the real estate developer are higher as compared to other developers; prices of the real estate developer are within the reach of the common man.

c. Place

The basic concept of place “refers to the point of sale”. It has also been defined as an element which “includes distribution channels, warehousing facilities, mode of transportation and inventory control management thus it is a mechanism through which goods and services are moved from the service provider and manufacturer to consumer” (Singh, M., 2012). It also includes discussion on intermediaries and their formats, namely wholesaling or retailing, the different members of the distribution channel and their vertical integration, both forward and backward.

The study uses the following items to understand conduct of the developer for place as a dimension of conduct: electricity charges for the houses constructed by the real estate developer are higher as compared to the houses in other societies; the houses constructed by the real estate developer has peaceful surroundings; the houses constructed by the real estate developer has easy accessibility to market; there is ample greenery in the vicinity of the houses constructed by the real estate developer.

d. Promotion

Economic Times defines promotion as that which “refers to all the activities undertaken to make the product or service known to the user and trade. This can include advertising, word of mouth, press reports, incentives, commissions and awards to the trade. It can also include consumer schemes, direct marketing, contests and prizes”. According to Singh, M. (2012), “promotion helps the trader and sales force to represent the product to the consumers in an effective manner and induce them to buy”. Promotion helps in increasing product trial for a new product, increasing market share of the firm, reinforcing repeat purchases, enhancing loyalty etc.

Similar to Marketing mix, there exists a mix of tools for promotion as well and this is referred to as the marketing communication mix. These may be both paid and unpaid. According to Kotler, there are eight pillars of this communication mix. These are: *Advertising, Sales Promotion, Events and Experiences and Public Relations and Publicity.*

The study uses the following items to analyse conduct of real estate developers on promotion as a conduct dimension: the real estate developer offers beneficial schemes (diwali festival offers etc); your friends/ neighbours/ relatives are aware about your real estate developer; you first learned about your real estate developer from your friends/ neighbours/ relatives; you have come across the advertisements of your real estate developer in the past; your real estate developer advertises heavily; your real estate developer provides all the necessary information in its advertisements; it was through advertisements that you first came to know about your real estate developer; advertisement was one of the factors which influenced your purchase decisions; you have come across celebrities in the advertisements of the real estate developer in the past; celebrity endorsers have ensured you about the trustworthiness of the real estate developer; celebrity endorsement was one of the factors which influenced your purchase decision.

e. Legal Conduct

This dimension helps studying the legal side of the conduct of the real estate developer before, during and after the sale of the houses or dwelling. The legal aspect of conduct is quite serious issue as it involves transfer of property rights and many associated issues. The following two items have been used to analyses the legal conduct of the real estate developers: there are no unresolved legal issues encountered by the customers after making the purchase from the real estate developer; the registry and other legal processes are conducted smoothly from the real estate developer’s end.

f. Reliability

Reliability is a major factor which builds a strong bond between a buyer and a seller. If the buyer doesn’t hold confidence in the seller he or she may not be take the purchase decision as the investment in the purchase of a property is very high. The following items have been used to analyses reliability as a conduct parameter: the real estate developer fulfills its promises when it comes to the quality of items used in the construction of houses; the real estate developer fulfills its promises in providing facilities (e.g. parking, generator, water supply, lifts, security etc); the real estate developer fulfills all the promises it makes in its advertisements; when the real estate developer promises to do something by a certain time, it does so; One feels safe in his transactions with the real estate developer

g. Responsiveness:

The responsiveness of the real estate developers in their conduct with the customers is of great importance. In other words the dealing of the sellers of the property is of crucial importance as it involves expenditures to life time savings of the buyers. The present paper has made use of the following items to study the conduct dimension of responsiveness: the real estate development authorities give prompt service to customers; the real estate developer gives personal attention to

customers when solving their problems; the real estate developer tells exactly when the services will be performed; authorities of the real estate developer are consistently courteous; the behavior of the authorities of the real estate developer instilled confidence in you.

h. Empathy

Empathy has been accorded a lot of importance by the buyers in almost every type of transactions. Thus to analyses this aspect of conduct is of grave importance in transactions where the investments rare huge. The following items have been used in order to analyses this dimension: authorities of the real estate developer understand specific needs of the customers and authorities of the real estate developer provide you with suggestions on how to best prepare your house.

i. Code of Conduct

Initially many items were considered but in the final list of items which were considered for analysis were derived from the reliability and validity tests of each of the items selected in the questionnaires. It was found only one item out of many, only one question pertaining to the code of conduct of real estate developers was considered i.e. authorities of the real estate developer are dressed formally.

j. CSR (Corporate Social Responsibility)

Many aspects of Corporate Social Responsibility were considered in the initial stage of designing of a questionnaire. But it was decided to take only one item only which could fulfill both the tests of reliability and validity. Thus as for the code of conduct, in case of CSR dimension of the conduct only one item to analyses the conduct of developers on the basis of CSR as a dimension of conduct was considered : i.e. the real estate developer fulfills its Social Responsibility (e.g. it has funded schools/ colleges/ temples etc).

1. Need and Significance, Objectives and Hypothesis of Study:

Problem Statement

In the market structure, conduct and performance paradigm the conduct dimensions is of significant importance. Thus, it is important to study the various dimensions of the conduct of the real estate developers especially in light of huge down fall of real estate business across the globe in general and in one of most modern city of India. The real analysis pertains to the fact that how the buyers perceive or experience the developer's conduct, the conduct of any seller is considered desirable if their conduct is nearing what the buyer expects. Therefore the gap in the conduct of the real estate firms as perceived and as expected by the buyers of the real estate firms is pivotal. The present study tries to highlights the various dimensions of conduct and gaps associated with it.

Need and Significance of the Study

The real estate sector commands a strategic position both economically and culturally. It is considered as a preferred option to channelize life time investment. To own land in any form is considered prestigious. This sector has exhibited its potential to alter economic scenario during the US sub-prime crisis of 2008. The crisis which emanated from the realty sector had a worldwide impact. In case of India this sector has been the driving force for the services sector on a whole and holds a pivotal position. Real estate is a sector of prime importance as each and every activity whether primary, secondary and tertiary are dependent on it. Availability of land or space is a pre-requisite for any kind of activity. Thus, real estate sector holds a strategic position in the economy.

The need for the study arises from the gap itself. Since, the area is not much catered to it provides an opportunity for a researcher to work on it and add to the existing literature. The commercial, residential, hospitality etc. units are mushrooming in Chandigarh and its neighbouring towns and cities. The

existence of a relatively well off buyer segment makes the real estate sector a profitable venture. Here arises the need to study the sector. The proposed study would be significant as it would be an exploratory study, the first of its kind for the region and would add to the existing literature covering the gap in literature. The proposed study would also have managerial implications for the supply side players.

Objectives of the Study

Following are the objectives of this study:

- i. To study the market conduct of public and private sector real estate developers in Chandigarh and neighbouring towns and cities.
- ii. To study whether experiences of buyers after purchase are different from expectations before purchase of public and private all real estate developers.

2. Research Methodology

Sampling Plan

Quota Sampling has been used to collect responses from the customers of real estate developers in the Chandigarh and its neighboring towns and cities. The quota sampling is a form of sampling where data is collected from a homogeneous group. In our case this homogeneous group consists of the buyers or customers of the real estate market. The second step in quota sampling is to select a variable which helps dividing the homogenous group into sub groups in order to extract information. The study uses type of developer as the variable which helps forming two broad groups with homogenous units i.e. the buyers of a particular developer. A quota of 300 was allotted to Public Sector Developers whereas a quota of 200 was allotted to private sector developers.

These real estate developers include Chandigarh Housing Board, PUSH PAC, PUDA, HUDA, Bajwa Developers, Gillco, Independent builders and other private societies. The total number of questionnaires distributed was 500, out of which 170 were Private developers and 178 were Public developers were complete in all respects. Thus, the response rate was nearly 70%.

Data Collection Tool

“A survey researcher’s ultimate dream is to develop unbiased measurements of opinions and attitudes” (Moors et al., 2014). Likert scale is one of the most widely used tools of measurement in the field of social sciences with 5-point Likert scale being the most common of all (Lozano et al., 2008).

Pretesting of questionnaire

The questionnaire was pretested with 50 respondents. After this exercise, statements of the questionnaires were reframed for better understanding of the respondents. This exercise also helped in confirming that the items in consideration were very relevant for the real estate customers in the Chandigarh and its neighbouring towns and cities.

Data Collection

In this study, primary data have been collected from customers of both private developers and of institutions like Chandigarh Housing Board. The data have also been collected from the customers/ buyers of houses from independent real estate builders.

Reliability Analysis

In order to check the reliability of the scale of the constructs under study, Cronbach’s Alpha method has been used. For a variable to be reliable, its reliability coefficient (Cronbach’s alpha measure) needs to exceed the accepted benchmark of 0.6 (Malhotra, 2007).

Cronbach’s Alpha, calculated for measuring the reliability of the scale was found to be 0.903 for the entire scale. This clearly shows the entire items listed in the questionnaire were found out to be reliable.

Validity Analysis

Validity is defined as “the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random error”. Following dimensions serve as important criteria for analyzing the validity of the scale:

Face Validity

Face validity is proved when a scale “on its face appears to be a good reflection of the construct”. For measuring gap between perceptions and expectations, various dimensions of conduct of real estate developers have been identified from the literature, thereby ensuring the face validity of the instrument.

Content Validity

An instrument adequately representing the conceptual framework that it is designed to measure is the one with proven content validity. All the constructs of this instrument have been substantiated by the respective sections in the review of literature. In addition to this, the instrument’s content validity has also been ensured through a thorough review by academic experts.

Convergent Validity

When a scale is found to correlate positively with other measures of the same construct, we may say that convergent validity has been proven for the scale. When measuring reliability of a scale with the help of Cronbach’s alpha, we also come to know about the degree of cohesiveness existing among the different items of the scale. As a result, Cronbach’s alpha also reflects convergent validity, though indirectly. As mentioned above Cronbach’s alpha for all the twelve constructs are fairly high (above 0.67).

3.

4. Analysis & Results :

The following section analyses the hypothesis framed on the basis of afore mentioned objectives. In order to study the market conduct of the real estate industry in Chandigarh and neighbouring towns and cities the analysis has made use of descriptive statistics, paired sample t test and independent sample t tests

To study whether experiences after purchase are different from expectations before purchase for customers of private developers

For this objective, we perform paired t-test. We perform paired t-test for all dimensions of conduct of private sector developers for which differences between experiences and expectations are to be assessed. We thus test the ten hypotheses under this objective, namely, H_{01} to H_{010} . Tables 1 and 2 show the results of the paired t-tests performed.

Table 1: Paired t-test: Mean Values (private developers)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Mean_product_expectation	3.6824	170	.65654	.05035
	Mean_product_experiences	3.3294	170	.71150	.05457
Pair 2	Mean_price_expectation	2.8118	170	.72966	.05596
	Mean_price_experiences	2.5647	170	.82055	.06293
Pair 3	Mean_Place_expectation	3.5412	170	.64456	.04944
	Mean_Place_experiences	3.3882	170	.59771	.04584
Pair 4	Mean_Promotion_expectation	3.2706	170	.65972	.05060
	Mean_Promotion_experiences	3.2118	170	.65442	.05019
Pair 5	Mean_Legal_conduct_expectation	3.4353	170	.92879	.07123
	Mean_Legal_conduct_experiences	3.2235	170	.94056	.07214
Pair 6	Mean_Reliability_expectation	3.6353	170	.84050	.06446
	Mean_Reliability_experiences	3.2471	170	.84133	.06453
Pair 7	Mean_Responsiveness_exceptation	3.6824	170	.75701	.05806
	Mean_Responsiveness_experiences	3.3529	170	.86628	.06644
Pair 8	Mean_Empathy_expectation	3.3529	170	.96942	.07435
	Mean_Empathy_experiences	3.0000	170	1.05472	.08089
Pair 9	Mean_Code_of_coduct_expectation	3.5412	170	.95525	.07326
	Mean_Code_of_coduct_experiences	3.6000	170	.99941	.07665
Pair 10	Mean_CSR_expectation	3.4000	170	.77230	.05923
	Mean_CSR_experiences	3.1765	170	1.02254	.07843

Table 2: Paired t-tests: significance values (private developers)

	Paired Differences					t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1	Mean_product_expectation - Mean_product_experiences	.35294	.83851	.06431	.22599	.47990	5.488	169	.000
Pair 2	Mean_price_expectation - Mean_price_experiences	.24706	.84133	.06453	.11968	.37444	3.829	169	.000
Pair 3	Mean_Place_expectation - Mean_Place_experiences	.15294	.58595	.04494	.06422	.24166	3.403	169	.001
Pair 4	Mean_Promotion_expectation - Mean_Promotion_experiences	.05882	.28171	.02161	.01617	.10148	2.723	169	.007
Pair 5	Mean_Legal_conduct_expectation - Mean_Legal_conduct_experiences	.21176	.94955	.07283	.06800	.35553	2.908	169	.004
Pair 6	Mean_Reliability_expectation - Mean_Reliability_experiences	.38824	1.00994	.07746	.23532	.54115	5.012	169	.000

Pair 7	Mean_Responsiveness_expectation - Mean_Responsiveness_experiences	.32941	.98975	.07591	.17956	.47927	4.339	169	.000
Pair 8	Mean_Empathy_expectation - Mean_Empathy_experiences	.35294	1.04009	.07977	.19546	.51042	4.424	169	.000
Pair 9	Mean_Code_of_conduct_expectation - Mean_Code_of_conduct_experiences	.05882	.95277	.07307	.20308	.08543	-.805	169	.422
Pair 10	Mean_CSR_expectation - Mean_CSR_experiences	.22353	.87539	.06714	.09099	.35607	3.329	169	.001

From the results in the tables above, we accept or do not accept the following null hypotheses H_{01} to H_{10} :

H_{01} : There is no significant difference between PRODUCT experiences and product expectation for customers of private developers

For product gap, we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the product are lesser than those of the expectations. As a result, there is a negative product gap which shows that customers are dissatisfied with the “product” provided by the real estate developers.

H_{02} : There is no significant difference between PRICE experiences and price expectation for customers of private developers

For price gap, we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the price are lesser than those of the expectations. As a result, there is a negative price gap which shows that customers are dissatisfied with the pricing by the real estate developers

H_{03} : There is no significant difference between PLACE experiences and place expectation for customers of private developer

For place gap, we obtain the significance value of 0.001. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the place mix are lesser than those of the expectations. As a result, there is a negative place gap which shows that customers are dissatisfied with the place mix of the real estate developers

H_{04} : There is no significant difference between PROMOTION experiences and promotion expectation for customers of private developers

For gap in the promotion, we obtain the significance value of 0.007. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the promotion mix are lesser than those of the expectations. As a result, there is a negative promotion gap which shows that customers are dissatisfied with the promotion mix of the real estate developers

H_{05} : There is no significant difference between LEGAL CONDUCT experiences and legal conduct expectation for customers of private developers

For gap in the Code of Conduct, we obtain the significance value of 0.004. As a result, we reject the null hypothesis and we can say that after purchase, experiences about the legal conduct are lesser than those of the expectations. As a result, there is a negative legal conduct gap which shows that customers are dissatisfied with the legal conduct of the real estate developers

H_{06} : There is no significant difference between RELIABILITY experiences and reliability expectation for customers of private developers

For reliability gap, we obtain the significance value of 0.000. Hence, we can say that after purchase, experiences about the reliability of the real estate developers are lesser than those of the expectations. As a result, we reject the null hypothesis and we can say that there is a negative reliability gap which shows that customers are dissatisfied with the reliability of the real estate developers

H₀₇: There is no significant difference between RESPONSIVENESS experiences and responsiveness expectation for customers of private developer

For responsiveness gap, we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the responsiveness of the real estate developers are lesser than those of the expectations. As a result, there is a negative responsiveness gap which shows that customers are dissatisfied with the responsiveness of the real estate developers

H₀₈: There is no significant difference between EMPATHY experiences and empathy expectation for customers of private developer

For empathy gap, we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the empathy of the real estate developers are lesser than those of the expectations. As a result, there is a negative empathy gap which shows that customers are dissatisfied with the empathy of the real estate developers

H₀₉: There is no significant difference between CODE OF CONDUCT experiences and code of conduct expectation for customers of private developers

For gap in the Code of Conduct, the table suggests the use of negative ranks and we obtain the significance value of 0.422, which is greater than 0.05. As a result, we accept the null hypothesis and we can say that real estate purchase has no significant effect on differences between expectations and experiences

H₀₁₀: There is no significant difference between CSR experiences and CSR expectation for customers of private developers

For CSR gap, the table suggests the use of positive ranks and we obtain the significance value of 0.001. Hence, we reject the null hypothesis and we can say that after purchase, experiences about CSR of the real estate developers are lesser than those of the expectations. As a result, there is a negative CSR gap which shows that the customers are dissatisfied with the CSR of the real estate developers.

To study whether experiences after purchase different from expectations before purchase for customers of Public Developers

For this objective, we perform paired t-test. We perform paired t-test for all dimensions of conduct for which differences between experiences and expectations are to be assessed. We thus test the ten hypotheses under this objective, namely, H₀₁₁ to H₀₂₀. Tables 3 and 4 show the results of the paired t-tests performed.

Table 3: Paired t-test: Mean Values (Public Developers)
Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Paired Sample 1 Mean_product_expectation	3.1798	178	.62998	.04722
Mean_product_experiences	2.7191	178	.76637	.05744
Paired Sample 2 Mean_price_expectation	4.0000	178	.79547	.05962
Mean_price_experiences	3.7079	178	.95317	.07144
Paired Sample 3 Mean_Place_expectation	4.2809	178	.79531	.05961
Mean_Place_experiences	3.8652	178	.83957	.06293
Paired Sample 4 Mean_Promotion_expectation	2.8427	178	.70348	.05273
Mean_Promotion_experiences	2.8202	178	.69805	.05232
Paired Sample 5 Mean_Legal_conduct_expectation	4.3933	178	1.02641	.07693
Mean_Legal_conduct_experiences	3.2697	178	1.61745	.12123
Paired Sample 6 Mean_Reliability_expectation	4.2135	178	.75871	.05687
Mean_Reliability_experiences	3.5169	178	.79706	.05974
Paired Sample 7 Mean_Responsiveness_expectation	4.1348	178	.83957	.06293
Mean_Responsiveness_experiences	3.2247	178	1.03883	.07786
Paired Sample 8 Mean_Empathy_expectation	2.7640	178	1.00869	.07560
Mean_Empathy_experiences	2.1910	178	1.00705	.07548
Paired Sample 9 Mean_Code_of_conduct_expectation	3.1461	178	1.19840	.08982
Mean_Code_of_conduct_experiences	3.2022	178	1.26830	.09506
Paired Sample 10 Mean_CSR_expectation	3.3034	178	1.32259	.09913
Mean_CSR_experiences	2.5955	178	1.29072	.09674

Table 4 : Paired t-tests: significance values (Public Developers)

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Mean_product_expectation - Mean_product_experiences	-.46067	.86431	.06478	-.33283	.58852	7.111	17	.000
Pair 2 Mean_price_expectation - Mean_price_experiences	-.29213	.76951	.05768	-.17831	.40596	5.065	17	.000
Pair 3 Mean_Place_expectation - Mean_Place_experiences	-.41573	.80688	.06048	-.29638	.53508	6.874	17	.000
Pair 4 Mean_Promotion_expectation - Mean_Promotion_experiences	-.02247	.14863	.01114	-.00049	.04446	2.017	17	.045
Pair 5 Mean_Legal_conduct_expectation - Mean_Legal_conduct_experiences	1.12360	1.82153	.13653	.85416	1.39303	8.230	17	.000
Pair 6 Mean_Reliability_expectation - Mean_Reliability_experiences	-.69663	1.05664	.07920	-.54033	.85292	8.796	17	.000
Pair 7 Mean_Responsiveness_expectation - Mean_Responsiveness_experiences	-.91011	1.22719	.09198	-.72859	1.09163	9.894	17	.000
Pair 8 Mean_Empathy_expectation - Mean_Empathy_experiences	-.57303	1.15360	.08647	-.40240	.74367	6.627	17	.000
Pair 9 Mean_Code_of_conduct_expectation - Mean_Code_of_conduct_experiences	-.05618	.95503	.07158	-.19744	.08509	-.785	17	.434
Pair 10 Mean_CSR_expectation - Mean_CSR_experiences	-.70787	1.30364	.09771	-.51503	.90070	7.244	17	.000

From the tables above we either accept or do not accept the null hypotheses (H_{011} to H_{020}):

H_{011} : There is no significant difference between PRODUCT experiences and product expectation for customers of Public developers

For product gap, we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the product are lesser than those of the expectations. As a result, there is a negative product gap which shows that customers are dissatisfied with the “product” provided by the real estate developers

H_{012} : There is no significant difference between PRICE experiences and price expectation for customers of Public developer

For price gap, the table suggests the use of positive ranks and we obtain the significance value of 0.001. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the price are lesser than those of the expectations. As a result, there is a negative price gap which shows that customers are dissatisfied with the pricing by the real estate developers

H_{013} : There is no significant difference between PLACE experiences and place expectation for customers of Public developer

For place gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the place mix are lesser than those of the expectations. As a result, there is a negative place gap which shows that customers are dissatisfied with the place mix of the real estate developers

H₀₁₄: There is no significant difference between PROMOTION experiences and promotion expectation for customers of Public developer

For gap in the promotion, we obtain the significance value of 0.045. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the promotion mix are lesser than those of the expectations. As a result, there is a negative promotion gap which shows that customers are dissatisfied with the promotion mix of the real estate developers

H₀₁₅: There is no significant difference between LEGAL CONDUCT experiences and legal conduct expectation for customers of Public developers

For place gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the place mix are lesser than those of the expectations. As a result, there is a negative place gap which shows that customers are dissatisfied with the place mix of the real estate developers

H₀₁₆: There is no significant difference between RELIABILITY experiences and reliability expectation for customers of Public developer

For reliability gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the reliability of the real estate developers are lesser than those of the expectations. As a result, there is a negative reliability gap which shows that customers are dissatisfied with the reliability of the real estate developers

H₀₁₇: There is no significant difference between RESPONSIVENESS experiences and responsiveness expectation for customers of Public developer

For responsiveness gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the responsiveness of the real estate developers are lesser than those of the expectations. As a result, there is a negative responsiveness gap which shows that customers are dissatisfied with the responsiveness of the real estate developers

H₀₁₈: There is no significant difference between EMPATHY experiences and empathy expectation for customers of Public developers

For empathy gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about the empathy of the real estate developers are lesser than those of the expectations. As a result, there is a negative empathy gap which shows that customers are dissatisfied with the empathy of the real estate developers

H₀₁₉: There is no significant difference between CODE OF CONDUCT experiences and code of conduct expectation for customers of Public developers

For gap in the Code of Conduct, the table suggests the use of negative ranks and we obtain the significance value of 0.434, which is greater than 0.05. As a result, we accept the null hypothesis and we can say that real estate purchase has no significant effect on differences between expectations and experiences

H₀₂₀: There is no significant difference between CSR experiences and CSR expectation for customers of Public developers

For CSR gap, the table suggests the use of positive ranks and we obtain the significance value of 0.000. Hence, we reject the null hypothesis and we can say that after purchase, experiences about CSR of the real estate developers are lesser than those of the expectations. As a result, there is a negative CSR gap which shows that customers are dissatisfied with the CSR of the real estate developers

To study whether gaps between experiences and expectation vary across different developer types

For this objective, we perform independent samples t-test. We perform independent samples t-test for all dimensions of conduct for which differences between experiences and expectations are to be assessed across different developer types. We thus test the ten hypotheses under this objective, namely, H₀₂₁ to H₀₃₀. Table 5 and 6 shows the results of the independent samples t-tests performed.

Table 5 .:Group Statistics of Public and Private Developers

	Developer_Type	N	Mean	Std. Deviation	Std. Error Mean
Mean_Gap_Product	Public Developers	178	-.4575	.82400	.06176
	Private Developers	170	-.2588	.74677	.05727
Mean_Gap_Price	Public Developers	178	-.3034	.71683	.05373
	Private Developers	170	-.2627	.75211	.05768
Mean_Gap_Place	Public Developers	178	-.3820	.68487	.05133
	Private Developers	170	-.1824	.52650	.04038
Mean_Gap_Promotion	Public Developers	178	-.0787	.76984	.05770
	Private Developers	170	-.3647	1.20989	.09279
Mean_Gap_Legal_conduct	Public Developers	178	-1.1067	1.80938	.13562
	Private Developers	170	-.2118	.88169	.06762
Mean_Gap_Reliability	Public Developers	178	-.7079	.88531	.06636
	Private Developers	170	-.3718	.89133	.06836
Mean_Gap_Responsiveness	Public Developers	178	-.8697	1.15865	.08684
	Private Developers	170	-.3929	.91092	.06986
Mean_Gap_Empathy	Public Developers	178	-.6067	1.16559	.08736
	Private Developers	170	-.3176	.99658	.07643
Mean_Gap_Code_of_conduct	Public Developers	178	.0562	.95503	.07158
	Private Developers	170	.0588	.95277	.07307
Mean_Gap_CSR	Public Developers	178	-.7079	1.30364	.09771
	Private Developers	170	-.2235	.87539	.06714

Table 6 : Results of the independent samples t-test for Private and Public developer

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper

Mean_Gap_Product	Equal varianc es assume d	1.533	.216	2.353	346	.019	-.19864	.08442	-.36468	.03260
	Equal varianc es not assume d			2.358	345.061	.019	-.19864	.08423	-.36431	.03297
Mean_Gap_Price	Equal varianc es assume d	2.632	.106	.516	346	.606	-.04063	.07874	-.19550	.11425
	Equal varianc es not assume d			.515	342.966	.607	-.04063	.07883	-.19568	.11443
Mean_Gap_Place	Equal varianc es assume d	21.392	.000	3.039	346	.003	-.19967	.06570	-.32889	.07045
	Equal varianc es not assume d			3.057	331.061	.002	-.19967	.06531	-.32815	.07119
Mean_Gap_Promotion	Equal varianc es assume d	60.580	.000	2.644	346	.009	.28605	.10821	-.07322	.49889
	Equal varianc es not assume d			2.618	284.366	.009	.28605	.10927	-.07097	.50114
Mean_Gap_Legal_conduc t	Equal varianc es assume d	147.384	.000	5.822	346	.000	-.89498	.15371	1.19730	.59265

Mean_Gap_Reliability	Equal variances not assumed			5.90	259.17	.000	-.89498	.15154	1.1933	.5965
	Equal variances assumed	.117	.732	3.528	346	.000	-.33610	.09526	.52345	.14875
	Equal variances not assumed			3.528	345.035	.000	-.33610	.09527	.52349	.14872
Mean_Gap_Responsiveness	Equal variances assumed	21.090	.000	4.254	346	.000	-.47672	.11207	.69714	.25630
	Equal variances not assumed			4.277	333.807	.000	-.47672	.11146	.69597	.25747
Mean_Gap_Empathy	Equal variances assumed	6.379	.012	2.482	346	.014	-.28909	.11650	.51823	.05996
	Equal variances not assumed			2.490	341.880	.013	-.28909	.11608	.51742	.06077
Mean_Gap_Code_of_conduct	Equal variances assumed	1.733	.189	.026	346	.979	-.00264	.10230	.20385	.19856
	Equal variances not assumed			.026	345.339	.979	-.00264	.10229	.20384	.19855

Mean_Gap_CSR	Equal variances assumed	29.565	.000	4.050	346	.000	-.48434	.11959	-.71956	-.24911
	Equal variances not assumed			4.085	310.985	.000	-.48434	.11856	-.71761	-.25106

H₀₂₁: There is no significant variation in the product gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .019. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₁. This means there is a statistically significant difference in the product gap across developer type, with the product gap being more in developers like Public Developers.

H₀₂₂: There is no significant variation in the price gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .606. Since this significance value is more than .05, so we accept the null hypothesis H₀₂₂. This means there is no statistically significant difference in the price gap across developer type. The difference in the mean values observed is purely by chance.

H₀₂₃: There is no significant variation in the place gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .003. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₃. This means there is a statistically significant difference in the place gap across developer type, with the place gap being more in case of developers like Public Developers.

H₀₂₄: There is no significant variation in the promotion gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .009. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₄. This means there is a statistically significant difference in the promotion gap across developer type, with the promotion gap being more in case of private developers.

H₀₂₅: There is no significant variation in the legal conduct gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .000. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₅. This means there is a statistically significant difference in the legal conduct gap across developer type, with the legal conduct gap being more in case of private developers.

H₀₂₆: There is no significant variation in the reliability gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .000. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₆. This means there is a statistically significant difference in the reliability gap across developer type, with the reliability gap being more in case of developers like Public developer.

H₀₂₇: There is no significant variation in the responsiveness gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .000. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₇. This means there is a statistically significant difference in the responsiveness gap across developer type, with the responsiveness gap being more in case of developers like Public developer.

H₀₂₈: There is no significant variation in the empathy gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .014. Since this significance value is less than .05, so we reject the null hypothesis H₀₂₈. This means there is a statistically significant difference in the empathy gap across developer type, with the empathy gap being more in case of developers like Public developer.

H₀₂₉: There is no significant variation in the code of conduct gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .979. Since this significance value is more than .05, so we accept the null hypothesis H₀₂₉. This means there is no statistically significant difference in the code of conduct gap across developer type. The difference in the mean values observed is purely by chance.

H₀₃₀: There is no significant variation in the CSR gap across categories of developer type

When we look at the independent samples test statistics in the table, we find the significance value to be .000. Since this significance value is less than .05, so we reject the null hypothesis H₀₃₀. This means there is a statistically significant difference in the CSR gap across developer type, with the CSR gap being more in case of developers like Public developer

5. Conclusion and Recommendation:

The present study finds that the market conduct of real estate developers in Chandigarh and its neighbouring towns and cities has been fairly above average with their values over 3. Though, a special effort needs to be undertaken in order to improve on the aspect of Empathy and CSR dimensions of conduct as both are having their perceived or experiences mean values less than 3. Thus the study highlights that it is of paramount importance to study the various dimensions of conduct of real estate developers i.e. is what the buyers have experienced or perceived is same as what they had expected from their sellers irrespective of the overall conduct being above satisfactory level. The objective was to analyse and find out if there was any significant difference between expectation and experience of buyers after purchase of the house for both private sector and public sector developer. The study found that there is a significant difference between what a buyer expects and what he or she really experiences in the business of real estate business. The study clearly showed that there exists a significant difference in nine broad dimensions of conduct for both the private and public sector developers. The null hypothesis was not accepted and the difference was found to be significant at 5 percent level of significance for all but for Code of Conduct dimensions of conduct for both private and public sector real estate developers. In case of code of conduct the p-value was greater than .050. Therefore the null hypothesis is not rejected. The gap across developer type was insignificant for both public and private sector in case of Price and Code of Conduct as the p-value is greater than .050. This means there is no significant difference between the conduct of public and private sector developers on these two parameters.

The study calls for improving of various dimensions of conduct of the real estate developers on the basis of high gap values. One can safely conclude that due to the significant differences in the what is expected by the buyers and what is experienced by the buyers the degree of dissatisfaction do come into play in this industry where the stakes of the buyer is very large. This can be one of important factor in the downfall in the business of real estate in the modern city of Chandigarh.

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