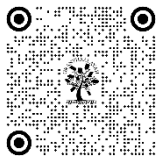


# VALIDATING THE MEASURES AND ASSESSING THE DIMENSIONS OF PURCHASE BEHAVIOR IN APARTMENT SCENARIO IN INDIAN PERSPECTIVE

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## DOI

[10.29121/shodhkosh.v4.i2.2023.2294](https://doi.org/10.29121/shodhkosh.v4.i2.2023.2294)

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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## ABSTRACT

As the data and technology-based interference in real estate decision making is increasing, the customer work behavior and builder technology usage is seemingly shaping value propositions in more than one way. While recent research has begun to take technology imprint as seriously yet very few studies have sought to validate the measures and assess the dimensions of purchase behavior in apartment scenario in Indian perspective. This research begins to address the instrument's construct validity by arriving at a single instrument with confirmatory factor analysis and proposes broad dimensions that fit the set of data effectively. Results have practical implications for real estate marketers but also conceptual implications pertaining to application of these benchmarks in industrial perspective.

**Keywords:** Apartment purchase, Customer work behavior, builder technology usage, value proposition, Construct validity, CFA

## 1. INTRODUCTION

Home buying and its transforming determinants constitute a novel area of academic research. In sharp contrast to purchase of 'commercial' property, the 'home' buying in technology intensive age; needs extensive and innovative research focus. The trend of 'constructing' one's own house has given way to 'purchasing' a prebuilt and pre-fabricated home (Gingell & Shahab, 2021). In view of rise in areas under urbanization, outward expansion of urban spaces from central economic locus, rise in industrialization, choice for home where the economic activity and high paying employment is being availed; all identify as some of the aspects that are influencing the home buying decisions and purchase behavior. The technology has been observed as transforming the manner in which customer is searching for home availability for ownership in urban spaces and across the group housing custom housing project. The urban peripheries, intent to own property in or near to place of work, technology driven influences; all constitute a new influence on the manner in which homes are searched, home based purchase decision are made and the manner in which home intuitions are voiced. The extensive digitalization, technology induced marketization, transforming work patterns, inclusion of AI and computers in work style, and consumption based decision making, individual technology reliance and dependence (Furr & Eggers, 2020); are all changing the home purchase decision making environment and antecedents.

## 2. CHALLENGE

The evolving customer's apartment purchase behavior is widely being interpreted as involving aspects of value propositions being formed by individual customer. The value propositions notion (Minerbo et al., 2023) emphasizes the core aspect across which the apartment purchase decisions are undertaken. The theoretical emphasis on value propositions (Baur et al., 2023), (Bahr & Fliaster, 2022) and transformation of value propositions has altered the way in which real estate is being purchased. The rising usage of technology at workplace (Feng et al., 2021), emerging role of artificial intelligence in human decision making (Antretter et al., 2020); has a major role to play in deciphering the value and attach value to tangible and intangible aspects alike. The builder's technology impetus is changing the manner in which builder communicates the value to prospective customer. The technology derived market orientation (Bielinski & Tomczynska, 2015) and inherent technology orientation of builder (Lu, 2020) is itself changing the way the property purchase decisions are being made and influenced. The value proposition assessment (Niebuhr & Borle, 2022) in age of technology is evolving from showcasing physical space (in form of architectural designs, interiors, room layouts) to customer based co-creation of virtual and augmented reality based experiences. The inherent technology orientation (Baur et al., 2023) of the firms dealing with real estate marketing are onset to create and change the manner in which the value is being created and delivered across real estate buyers in urban spaces. The changing nature of work (Budd et al., 2022) and increasing intervention of technology (Cascio & Montealegre, 2016) is changing the way the work is being accomplished in modern organizations. The technology (Lu, 2020) hence emerges as the pivotal 'change agent' that is revolutionizing the pattern of creation, sustenance and delivery of 'value' in real estate marketing industry. The value proposition assessment in the real estate hence identifies as the core research problem across which the entire discussion is focused. The research thus defines the problem as:

How the value proposition is changing in real estate marketing and what are the aspects in individual attributes and across builder and contextual levels, that are influencing value proposition determination in real estate marketing?

In first place, the study examines the association between technology shaped work behavior and builder's marketing efforts and digital value propositions and the subjective change in their nature. Secondly this study seeks to contribute to value propositions literature by examining the effects (direct associations) across the dimensions of work behavior and builder's usage of technology and digital value propositions creation. Another major contribution is in form of emphasis being exerted on identification of moderating effects of materialism and other societal change aspects in shaping the luxury consumption and actual purchase decision across the residential apartment marketing cycle.

## 3. THEORETICAL PREVIEW OF RESEARCH CONSTRUCTS

Although real estate value proposition construct per se has remained one of the most research areas, it is nevertheless the least understood and most contentious areas of real estate marketing. Notwithstanding this difficulty, the steady rise in migration of people from physical channels of interaction to digital means for social and economic exchanges, and rising technology pervasiveness in human life; has necessitated the need to seek an understanding of the drivers of 'real estate value propositions in custom housing' solutions like the apartment marketing and respective apartment purchase behavior.

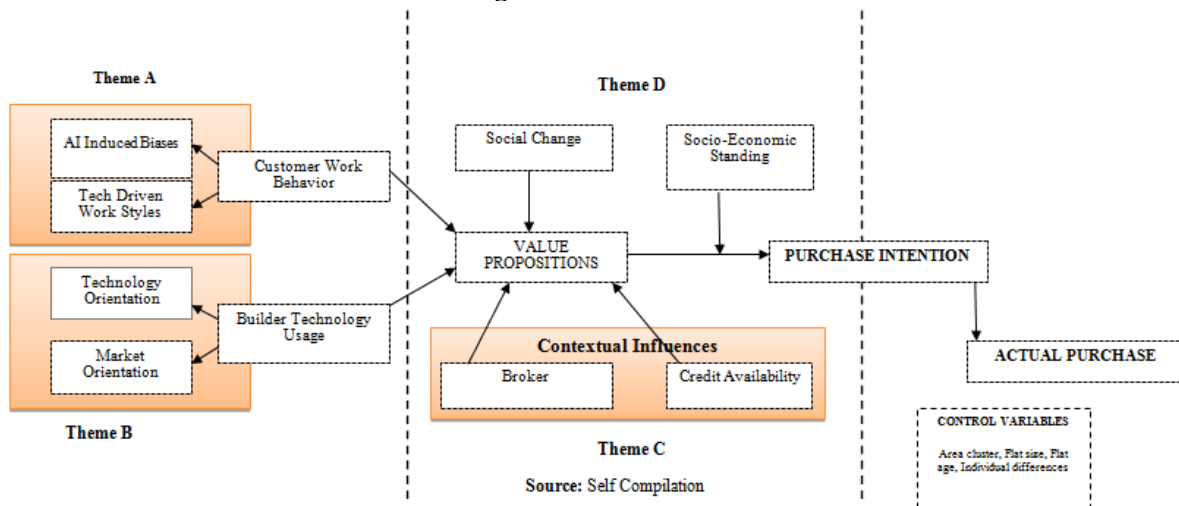
In line with this, several literary studies have focused on reviewing the key variables that effect the real estate value proposition determination in custom housing (apartment) perspective. Focusing on the determinants of 'real estate value propositions in custom housing', the last two years have witnessed a rise in the number of variables that have been explored. Some of the major antecedent factors include the work ecosystem, technology intervention, extent of incorporation of technology into decision making, technology as force in marketing. These antecedent variables have all sought to account for some degree of variance in real estate marketing under evolving complex adaptive systems. The subsequent application of complex adaptive systems approach to real estate marketing entails discussions regarding the role of technology in inducing complexity and chaos; both across marketer and customer end.

The extension of 'value proposition determination' into real estate marketing research is certainly important for the legible advancement of real estate complexity and value marketing theory. This is because many real estate value proposition marketing strategies and plans are initiated with the sole hope of exploring, creating and exploiting new customer domains whereby meaningful exchange of value can take place. As studies indicate that in real estate propositions, the need to introduce customized and new real estate custom housing projects and apartments need to align with evolving socio-economic technology driven commerce and life styles. In this perspective, real estate value

proposition conceptualization ideally needs to be part and parcel of the evolving socio-economic realities in which value for custom housing (apartment) is to be created.

Studies on value proposition in custom housing especially the apartment purchase has reflected on the notion that value is not embedded in product or service but is contingent in the customer's interactive consumption experience (DeVos et al., 2016). The construct has been better interpreted as 'value-in-context' the term points to incorporation of idiosyncratic quality of value; and allowance for potential changes in configurations of value as per transforming realities (Gunther et al., 2022). As such, Gunther,(2022) assert that the digital value proposition literature seems to have significant potential for further theory advancement in real estate research. Surprisingly however, very few studies have sought to utilize the inputs from the digital and data driven value proposition discipline to explain variations in apartment purchase behaviors in Indian perspective.

**Figure 1:** Research model



## 4. RESEARCH DESIGN

### 4.1 TARGET POPULATION

The retail apartment purchasers across the organizations, working class, real estate aspirants were the target population. For the research purpose, we seek to define the retail apartment purchasers as those personnel who have roughly searched the property or apartment online as well as is registered account holder across any of the PROPRTECH applications or services provider like Makaan.com. The customer's actions have been observed to either facilitate or impede the creation of data derived value propositions. The review of study also points towards the feasibility of online apartment search as translating into digital (data) based value propositions and ultimate purchase decision making. The study based outcomes point towards the stringent need of introducing more domain specific training for real estate marketing scholars Hence the choice of retail apartment purchasers could be viewed in the context of their unbiased and consistent engagement and involvement in real estate decision making in urban scenario of Noida. The review of existing literature across individual based retail apartment purchasers reveals that the retail apartment purchaser is more vigilant with regard to conscious quality consumption. The choice is consistent with earlier studies in Indian context (Ali & Ullah, 2019).

### 4.2 SAMPLE

Theoretically the sample frame comprises the set of source materials from which the sample for the study is selected. The challenge of choosing the appropriate target population and unit of selection is ever evident in research studies. As such non probability sampling approaches can be applied and such approaches are appropriate for exploratory, descriptive and cross sectional research studies in behavioral finance perspective. Hence purposive sampling was relied upon for the collection of primary data. The researcher paid attention to the choice of respondents who possess elementary knowledge of the real estate and is keen in purchasing a property though online and mobile app modes for the last three months. The responding sample comprises the cross gender participation in the research. The study attracted 179 female participants and 246 male participants. The study exhibited participation of respondents from diverse age group and income groups.

### 4.3 MEASURES

The study variables comprise select identified screened factors and their sub dimensions that seek to capture the operational and theoretical details of phenomenon concerned. The study variables are divided cross four major set of influences. The first comprises work derived influences on consumer's psyche and next dominant set of influence is from technology incorporation in builder's marketing efforts. The third set of influence is from evolving contextual ecosystem and final impact on value proposition determination is from social value change, before actual purchase intention are formed.

- Customer Work Behavior: Technology determinism as shaping the penchant for technology usage at work, probable consequences for leaving decision making to technology, extent of automation decision making. This covers two dominant underlying influences from AI Induced Biases and Technology driven Work Styles
- Builder Technology Usage: Extent to which the builder and real estate marketer is leveraging and harnessing the potential of technology in reaching out to the prospective customers in age of technology driven life styles. This covers two dominant underlying influences from Technology Orientation and Market Orientation
- Ecosystem derived influences from Broker Technology, Credit availability, social change, Broker and Credit Availability are worth considering
- Contextual influences from Social Change, Socio-Economic Standing and Socio-demographic attributes are equally worth consideration
- Data driven Value Propositions as variable regards the emphasis on derived value propositions being crated on behalf of antecedent influences
- Purchase intention and Actual Purchase identify as two separate characteristic variables that shape the outcomes post the development of data derived value propositions.

### 4.4 INSTRUMENTATION

Instrumentation focuses on capturing the ethos and centricity of responses and conceptualization of phenomenon in real time settings (Northrop, 2017). Instrumentation (Okechukwu, 2011) also needs to be effective in marketing and strategic management research as this ensures the extent to which the phenomenon is adequately captured across the spectrum (Zohrabi, 2013). Research instrumentation entails focus when the phenomenon is multi-dimensional and encompasses multiple aspects of the problem under hand (Switzer & Wisniewski, 1999). In view of the technology's rising impact on work, human decision making and undertaking high involvement purchase decisions, the instrumentation becomes more critical as technology is now widely recognized as a deterministic force with predictable impacts. Yet the instrumentation often suffers from challenges of adequate and appropriate measurement in legible manner (Birmingham & Wilkinson, 2003). Instrumentation needs to recognize that technology is fast emerging as a vital force for market shaping and innovation and that human-technology interaction in vivid forms needs effective measurement (Nystrom & Kaartemo, 2021). As evident and summarized again, technology is shaping work, cognitions, perception making, work and life decision making in multiple aspects as human mind is leaving decision making to technology whereas same technology is being leveraged by marketers as a viable means for market creation and market deepening initiative. Instrumentation (Mohammad & Sulaiman, 2015) hence needs to capture both: influences of work on cognitions, bias induction and work spillovers on the life style and vice versa the impact of technology on market based perception shaping and changeover The digital data driven ecosystem that bring both closer is the aggregation and agglomeration of brokerages, digital credit availability, impetus for social change. Data derived value propositions identify as fulcrum across which the decisions are influenced and undertaken and scope is sought to be explored. In ideal terms, the instrumentation exercise hence needs to calibrate and measure (Hagan, 2014) the conceptualized research phenomenon in systematic and quantitative manner.

## 5. RESULTS

All variables were normally distributed (the univariate skewness and kurtosis values were lower than 2 and 7, respectively). Therefore, maximum likelihood estimation (ML) was used. In view of the explorative nature of our study, we first factor analyzed the set of 123 sub scale items with the help of principal component analysis to test our a priori assumptions about the underlying factor structure. As a result, a total of twelve facets(dimensions) were obtained. We then calculated Cronbach's alpha measure for each factor to ensure satisfactory levels of internal consistency and to select the best items for each facet. Scale purification was conducted by eliminating items with high cross loadings and

led to a significant reduction in the number of items. A second exploratory factor analysis carried out with the remaining 49 items resulted in the extraction of the same factor structure. According to the loadings of the factors on the 12 dimensions, we named the dimensions: customer work behavior (comprising two factors namely AI Induced biases and Technology driven work styles), builder's technology usage (comprising two factors namely technology orientation and market orientation), contextual ecosystem (comprising two factors namely broker and credit availability), aspects like social change and socio-economic status, data driven value propositions and outcomes in form of purchase intention and actual purchase; constituting a set of twelve extracted factors. Next, the dimensions were tested for their reliability and validity one by one by means of confirmatory factor analyses with IBM AMOS 24.0 using the maximum likelihood approach. In order to assure valid construct measurements, the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the average variance extracted (AVE) and chi-square test as overall fit measures were used in the following to evaluate each dimension. In addition to Cronbach's  $\alpha$ , the local fit indice – indicator reliability, AVE, factor reliability and total variance explained – were employed to test the validity of the factors and indicators within each dimension (Baumgartner & Homburg, 1996). The following table summarize the results of the scale validation process using the above-named fit indices to develop and validate a measurement instrument for value proposition and actual purchase decision making. The fit statistics provided in Table one below suggest a good model fit for all dimensions with most fit measures scoring on or above the cut-off points, which are given in brackets in Table below (Bagozzi & Yi, On the evaluation of structural equation models, 1988). The measurement model therefore, contains a sufficient degree of reliability as well as convergent validity.

**Table 1: Model fit indices**

Aspect	Explanation	Measurement key	Observed
CMIN/Df	Chi-Square divided by degrees of freedom	< 3 indicates an acceptable fit	2.8
RMSEA	Root mean square error of approximation	<0.05 regarded as acceptable	0.03
GFI	Goodness of fit index	>0.90 as acceptable fit measure	.906
CFI	Comparative fit index	>0.90 as acceptable fit measure	.923
TLI	Tucker Lewis Index	>0.90 as acceptable fit measure	.914
AGFI	Adjusted Goodness of fit index	>0.90 as acceptable fit measure =1 represents perfect fit achievement	.902
PGFI	Parsimony Goodness of fit index	>0.50 as acceptable fit measure =1 represents perfect fit achievement	.890
NFI	Normed Fit Index	>0.90 as acceptable fit measure =1 represents perfect fit achievement	.935
RFI	Relative Fit Index	>0.90 as acceptable fit measure =1 represents perfect fit achievement	.901
IFI	Incremental Fit Index	>0.90 as acceptable fit measure =1 represents perfect fit achievement	.907

All factor loadings were statically significant ( $t > 1.95$ ,  $p < .05$ ) and ranged from .7 to .99. In order to correctly check for the convergent validity of the measurement model as a whole, we finally conducted a CFA on all extracted twelve dimensions at the same time. The GFI of .906, the AGFI of .902 and the root mean square error of approximation (RMSEA) of 0.003 for the overall model suggested a good model fit. Moreover, the overall chi-square test for the entire measurement model was statistically significant on a 0.1 per cent level. In order to derive a parsimonious measurement model with dimensions that are mutually exclusive in their meaning, an assessment of the discriminant validity is required in addition to testing the convergent validity. Discriminant validity is given when AVE for each construct (Table 2), reflecting the intra-dimensional interrelations, is greater than the squared correlation between that dimension and any other dimension, reflecting the inter-dimensional interrelations (Fornell & Larcker, 1981). With exception of the correlation shown in Table 2, the results indicate a high degree of discriminant validity. This conclusion is supported by Akaike's information criterion (AIC), a well-accepted criterion for the selection of measurement models, which was applied to all possible pairwise combinations of the twelve dimensions (Akaike, 1974). The pairs of dimensions exhibit the lowest AIC values suggesting the assignment of the 12 dimensions in the way described above. In summary, the findings supported the 12 dimensions of the data driven value proposition and actual purchase behavior.

**Table 2: Convergent and discriminant validity measures**

Sub Scale Dimensions	Item	Loading	CR	AVE	MSV	ASV
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I let AI influence me in my everyday decisions	<b>AB1</b>	.852	0.970	0.803	0.135	0.064
I cannot prevent an AI from influencing me in my everyday decisions	<b>AB2</b>	.865				
I cannot realize if artificial intelligence is influencing me in my everyday decisions	<b>AB3</b>	.832				
I cannot keep control over feelings like frustration and anxiety while doing everyday things with AI	<b>AB4</b>	.883				
I cannot handle it when everyday interactions with AI frustrate or frighten me	<b>AB5</b>	.921				
I cannot control my euphoria that arises when I use artificial intelligence for everyday purpose	<b>AB6</b>	.955				
I am interested in using artificially intelligent systems in my daily life	<b>AB7</b>	.941				
I would like to use Artificial Intelligence in my own job	<b>AB8</b>	.914				
The use of Marketer's apps and virtual tours and media options helps me to gain social approval	<b>VP3</b>	.910	0.983	0.891	0.581	0.144
Marketer's apps and virtual tours and media options helps to make a positive impression on other people	<b>VP4</b>	.936				
The use of marketer's apps and virtual media changed the way that apartments perceived by customers	<b>VP5</b>	.955				
After using marketer's apps and virtual tours, I feel like a smarter person	<b>VP6</b>	.965				
I have seen others availing the benefits of marketer's apps and virtual tours	<b>VP7</b>	.958				
I would use marketer's apps and virtual tours more often if better promotional incentives were offered	<b>VP8</b>	.934				
I'm very particular about the quality and safety of place where I intend to reside	<b>VP9</b>	.925				
it is increasingly rare to have enough time for work tasks	<b>CW1</b>	.958	0.971	0.892	0.122	0.060
the time between the more intense work phases has decreased	<b>CW2</b>	.951				
one has more often to do two or three things at once (such as eating lunch, writing emails, and talking on the phone)	<b>CW3</b>	.962				
ever more work has to be completed by fewer and fewer employees	<b>CW4</b>	.905				
Utilizes up-to-date technology in business operation	<b>TO1</b>	.780	0.906	0.706	0.312	0.207
Uses technology to put ahead of the competitors	<b>TO2</b>	.864				
Pioneers the use of new technology	<b>TO3</b>	.899				
Allocates financial resources to adopt the latest technology	<b>TO4</b>	.814				
Builder seems to make strategic decisions with respect to products and technologies based on how current competitors will react to competitive actions	<b>MO2</b>	.924	0.963	0.866	0.679	0.306
Builder seems to observe developments at adjacent markets in order to predict the entry of potential competitors early	<b>MO3</b>	.914				
In order to be ahead of competition builder seems to proceed offensively-minded when developing and implementing competitive actions	<b>MO4</b>	.953				
Builder's top management seems to regularly discusses competitors' strategies	<b>MO7</b>	.930				
My responsibilities force me to continually use available technological tools (cell phone, email, chat, video conferencing)	<b>TW2</b>	.908	0.957	0.849	0.581	0.148
I have downloaded work-related applications on my personal mobile devices	<b>TW3</b>	.860				
It is expected that I will always be connected to work issues beyond my workday	<b>TW4</b>	.956				
My colleagues contact me about work issues after my workday through my available mobile devices	<b>TW5</b>	.959				
Builder is actively introducing digital marketing innovation (Managerial innovativeness)	<b>BT3</b>	.747	0.931	0.772	0.679	0.323
Builder uses digital channels (such as online, social media, and mobile) to market its products and services (Customer experience)	<b>BT4</b>	.882				
Builder's technological innovations have enabled customers to interact with our operational processes in the new ways(Improving operation)	<b>BT5</b>	.895				

Builder has launched a new business model based on/using digital technology (Reinvention of business model)	<b>BT6</b>	.976				
Regular real estate product (apartment) support services	<b>BE3</b>	.932	0.973	0.880	0.475	0.231
Online real estate product (apartment) decision making services	<b>BE4</b>	.951				
Advanced real estate (apartment) service provision models	<b>BE5</b>	.942				
Data-driven real estate services	<b>BE6</b>	.972				
Real estate customers are made to engage in the innovation processes, promoting customer autonomy and collaboration through surveys, forums, direct meetings, etc.	<b>BE7</b>	.891				
A variety of financial options will prompt my decision to buy. For example, paying in installments	<b>CA3</b>	.684	0.833	0.629	0.270	0.138
I think there will be a good return on investment in	<b>CA4</b>	.932				
Prices greatly influence my property buying decisions	<b>CA5</b>	.741				
I enjoy spending time becoming acquainted with a new technical system	<b>SC3</b>	.851	0.900	0.750	0.560	0.272
I try to understand how a technical system exactly works	<b>SC4</b>	.848				
I try to make full use of the capabilities of a technical system.	<b>SC5</b>	.898				
The excellent location allows me to avoid the noise and bustle	<b>AP4</b>	.866	0.867	0.765	0.615	0.272
Buying a property in a desirable location will make my life convenient	<b>AP5</b>	.883				
Compared with the traditional housings, I would prefer to	<b>PI1</b>	.920	0.936	0.830	0.537	0.271
The next time I purchase a house, I would give priority to	<b>PI2</b>	.940				
I would like to recommend friends to purchase	<b>PI3</b>	.872				

	ACTP	AB	TECHW	CUST	TEO	MO	VALPR	BRO	CRE	SOC	BTU	INPUR
<b>ACTP</b>	0.875											
<b>AB</b>	0.261	0.896										
<b>TECHW</b>	0.232	0.093	0.922									
<b>CUST</b>	0.261	0.286	0.305	0.944								
<b>TEO</b>	0.465	0.209	0.559	0.293	0.840							
<b>MO</b>	0.640	0.368	0.277	0.233	0.521	0.930						
<b>VALPR</b>	0.204	0.046	0.762	0.349	0.540	0.334	0.944					
<b>BRO</b>	0.651	0.299	0.165	0.100	0.360	0.676	0.128	0.938				
<b>CRE</b>	0.309	0.070	0.505	0.197	0.520	0.311	0.490	0.337	0.793			
<b>SOC</b>	0.713	0.273	0.106	0.066	0.445	0.748	0.066	0.689	0.400	0.866		
<b>BTU</b>	0.784	0.343	0.331	0.222	0.492	0.824	0.330	0.672	0.328	0.729	0.879	
<b>INPUR</b>	0.698	0.283	0.315	0.225	0.462	0.715	0.254	0.587	0.361	0.683	0.733	0.911

Source: AMOS

**Table 3: Path relationships as evident**

Path Relationships			Estimate
Value Proposition	<---	Customer Work Behavior	.168
Value Proposition	<---	Builder Technology Usage	.435
Value Proposition	<---	Broker	.100
Value Proposition	<---	Credit	.434
Value Proposition	<---	Social Change	.349
Purchase Intention	<---	Value Proposition	.269
Actual Purchase	<---	Purchase Intention	.720
Market Orientation	<---	Builder Technology Usage	.844
Technology Orientation	<---	Builder Technology Usage	.507
Tech Driven Work styles	<---	Customer Work Behavior	.304
AI Induced Biases	<---	Customer Work Behavior	.285

Source: AMOS

## 6. DISCUSSIONS

Predicting data driven value propositions in real estate marketing remains an important issue at the heart of high involvement real estate purchase research, real estate marketing management and policy making in age of technology determinism. In terms of pull reasons, technology incorporation offers opportunities that work beyond the identifiable and recognizable limits in contemporary living. Regarding push aspects, consistent saturation of traditional marketing channels and need to differentiate offer immense opportunity to achieve critical mass in real estate marketing. Focusing on the internal forces that influence the real estate marketing and successive formation of data driven value propositions,

firm based leverage of technology in framing the value propositions by imbibing the work style, by aligning with market and inculcation of biases; constitute some of the viable contributing variables. Significantly, this study has sought to bring together the several scattered bodies of literature including the technology determinism, human computer interface, technology aided decision making, self-determination, technology augmented choice making in real decision making process, decision support technology, artificial intelligence for decision making in era of big data, harnessing technological advancements to promote better individual decision making in apartment purchase perspective as well as persuasive technology, immersive technology as shaping decision making. The theoretical relationship between real estate marketer's technology aided tantrums, mechanisms amidst the growing technology penetration across customer's work interfaces (diverse components of work and marketer's technology usage postures) and data derived value propositions in real estate scenario.

## 6.1 THEORETICAL IMPLICATIONS

The theoretical significance of research lies in consistent and singularity behavioral assessment of technology in work and technology in marketing; has not been leveraged earlier in either domestic or global literature on subject matter. The obvious implication of this is that one does not know the implications and outcomes of technology derived behaviors at work and across marketing interfaces, especially with regard to real estate marketing and apartment marketing proposition. Given the discussions above, the study argues that an examination of technology ingrained work behaviors and marketing aspects about the determinants of digital value propositions and to provide more fine grained insights into phenomenon could help the policy makers and researchers and managers to make strategic decisions in post pandemic phase of marketing real estate. The respective scope of current academic research hence contributes to the digital value propositions literature with development of technology inclusive context specific measures of major dimensions of digital value propositions in real estate sector. Building on this premise, the future real estate marketing with technology will be in a strong position to argue that extraneous factors like technology can rarely be ruled out while developing the effective marketing strategy in contemporary age.

## 6.2 PRACTICAL IMPLICATIONS

Real estate marketing organizations, which were once an element of social process, have now evolved into interactions of people and agents (individuals, partners, groups, parent organizations); all connected with technology and technology applications. The positional and market based advantage that is harnessed from usage of technology in real estate markets and respective dynamic value propositions that is gained is sustainable on account of cognition theory of technology that holds that AI induced biases are process of complex interaction between human inertia, cognitions and technology based interferences.

## 6.3 LIMITATIONS AND FUTURE SCOPE

The research poses limitations in terms of locational specificity, lack of longitudinal focus and lack of regional focus. The findings as emerged are exclusive to select market select this is mobile friendly and other segments may or may not exhibit similar intentions for value proposition formation. Further research can be conducted in areas of artificial intelligence, geo tagging and machine language driven algorithm as guiding customer to zero in on appropriate location. Further research can be conducted as involving longitudinal focus and imbibing elements of changes in behavior over period of time.

## CONFLICT OF INTERESTS

None

## ACKNOWLEDGMENTS

None

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