# Structural Equation Modeling Approach To Shaping Of Differences In Private Label Adoption In Groceries Segment

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Abstract: The research is needed more across "consumer" correlates than the "manufacturer" and "retailer" based correlates as these constitute the most significant aspects that could probably shape the market shares and success of branding across multitier private labels being promoted by organized food retailers. Store based offering of diverse food product categories (spices, grains, flours, ingredients, pulses, refined oils and cooking medium, tea and beverages, commodiments) seem to have brought the retailer in direct competition with manufacturer brand. In this regard the research leverages the structural equation modeling approach to ascertain the differences in propensity to adopt private labels on account of changes in grocery nature (pulses, spices, dairy, snack, oil, grain). The research study relied on Likert scale based pre validated scales to operationalize the factors. The sample size of 600 was undertaken with a valid sample size of 438. Across grocery segments, contrasting observations were reported. The impact of product attributes, consumer psychographics, store efforts and restraining forces was evident in varying proportions. Contribution: The research findings promote the earlier studies under the umbrella of 'cue utilization' theory, 'planned behavioral' prospects, 'expected utility' prospects and 'self-perception' theory. In terms of knowledge creation, the outcomes extend the resource-based theory and behavioral basis of marketing in retailing arena. In terms of theoretical consequences, the research outcomes reflect the incidence of impact of positional strategies as key to competitiveness on day to day basis.

Key Words: Store efforts, Private label adoption, Groceries, Consumer psychographics

## 1. INTRODUCTION AND RATIONALE

The interpretation of forces shaping organized packaged food retailing is not easy. This involves the consideration of extensive direct and lateral influences on the consumer from across multiple aspects. The influences (Lubis, 2019) working across organized food retailing segment have been classified as consumer driven rather than manufacturer driven in nature. The review of literature (Ham, 2018) suggests that the research is needed more across "consumer" correlates than the "manufacturer" and "retailer" based correlates as these constitute the most significant aspects that could probably shape the market shares and success of branding across multi-tier private labels being promoted by organized food

retailers. The aspect of quality variability, extent of preference being awarded to experience or search, extent of price consciousness and extent of consumer's variety seeking behavior; would definitely matter. The consumer based engagement in smart shopping also matters as this probably decides that whether the consumer goes in for usual shopping or seeks discounts, savings and quality as well. The consumer based correlates seem to the most prominent determinants of their preference towards private label and manufacturer brands in organized packaged food retailing. The consumer based perceptions are worth analyzing as the central focus of all marketing activity is the consumer attention and acquiring mindshare. The consumer based correlates seem to the most prominent determinants of their preference towards private label and manufacturer brands in organized packaged food retailing. The research is needed more across "consumer" correlates than the "manufacturer" and "retailer" based correlates as these constitute the most significant aspects that could probably shape the market shares and success of branding across multi-tier private labels being promoted by organized food retailers. The aspect of quality variability, extent of preference being awarded to experience or search, extent of price consciousness and extent of consumer's variety seeking behavior; would definitely matter. The consumer based engagement in smart shopping also matters as this probably decides that whether the consumer goes in for usual shopping or seeks discounts, savings and quality as well. The research is hence needed as these consumer driven aspects seem to shape the prospects for the sustainable marketing, development of successful branding strategies, and better understanding of consumer's mindsets across organized food retailing segments in Indian retail industry. The research is desired as this will generate new insights into the manner in which consumer gets prone to specific private label tiers, unconsciously gets into the trap of retailer, products across which quality variations are desired, purchase frequency, product categories desired and purchased, consumer's promotion sensitivity, consumer driven price consciousness, relationships intensity and susceptibility to store based category management being exercised. The research focus on the evolving consumer preference towards private label and manufacturer brands in organized packaged food retailing; is essential as this will provide new knowledge and information with regard to factors that could probably drive the consumer based adoption of private labels in systematic manner.

#### Grocery

Indian food retailing is in nascent stage and more structural and pro-consumer changes are about to sweep the market. The extent of organized food retailing is bound to exhibit double digit growth and more and more value chains are on the threshold of vertical integration. Food retailers across off-line and on-line channels like Reliance, Big Bazaar, Spencer, Easy Day; are getting more and more organized and taking control of the food supply chain in urban Indian perspective. Hence it makes sense to explore the consumer's viewpoint, their ideas and ideologies of preference towards private label and manufacturer brands in organized packaged food retailing.

## Literature

The evolution of food based retail distribution, increasing organization of food distribution through the chain of organized retailers, emergence of pro-customer business models and increasing organization of retail is fueling the demand for private labels across food section. There is growing tendency across the food retailers to capitalize on the private labels in order to differentiate themselves across consumer's mindsets. The retailer based offering of uniform or consistent private labels across diverse food product categories (spices, grains, flours, ingredients, pulses, refined oils and cooking medium, tea and beverages,

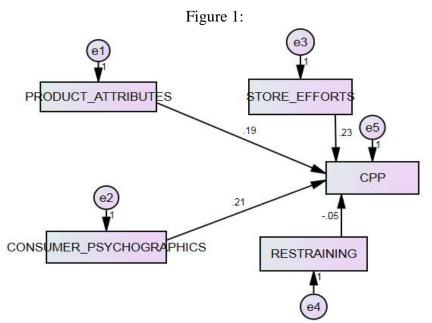
commodiments) seem to have brought the retailer in direct competition with manufacturer brand. The product attributes (Jin, 2005) involve the focus on the tangible and intangible attributes (Buck, 2014) that are often associated with the sublime development of the value propositions in the process. The studies vindicate the presence of the different aspects as shaping the value propositions in the organized food retailing in developing economies. The prospective value could derive from the category, from the ingredients, from the positioning across the store based interiors, from the staff based awareness and the overall manner in which the product is advertised inside the store premises. Across the various categories like fruits and vegetables, poultry, dairy, bakery, perishable categories, the product attributes need to be presented in direct and lateral means across the store-consumer interfaces. A study (Hermandez, 2011) on diverse perspective with regard to private label adoption on account of product attributes illustrated impact of differentiation and variety on consumer perception development. The role of aspects involving the product has been observed as instrumental in shaping the perceptions, cognitions, opinions and ideas of the prospective consumers. A study observed that usual consumers often believe that the retailer based private label brands do not vary much in terms of quality aspects and that nearly all brands of (food category) are basically same in quality. The study further observed that there are only minor variations among brands of (food category) in terms of quality. The study further concluded that consumers often believe that entire range of products on display is of good quality and that there is no difference in quality of brands with different country of origin. The studies (Veloutsou, 2004) emphasize the product based contents rarely differ only packaging is different and believe that the brands present similar quality notions. The consideration sets (Louviere, 1995) seem to possess a substantial role in modeling consumer choices. The studies across organized food retailing illustrate the substantial impact of the consideration set in the shaping of opinions. The study (Noormann, 2017) on product based drivers of the private label purchase behavior pointed towards the coordinated role of the intrinsic and extrinsic determinants as shaping the consumer's grocery based private label share under impact of respective product attributes and product category as displayed across store. The theoretical and conceptual approaches (Hoel, 2017) towards understanding the stimulus to consumption have been observed as involving the rational economic approaches or the psychodynamic approaches or the behaviorist aspects, cognitive aspects, self-driven attributes or the humanistic proportions. The studies (Mostafa, 2018) on the subject matter emphasize the myriad influences across multiple sectors that variably or invariably influence consumer's sense of choice making. The scale development and construct operationalization studies (Sweeney, 2001) on the subject matter underline the growing role of the psychographics to override the initial planning and crumble to contextual and other discrete influences. In terms of theory of planned behavior (Sun, 2019), the customer based thinking is more or so conceptualized in manner that is expected and measured. Yet in real terms the influences have often been observed as undermanaged and unexpected. The research (Dhar, 2001) categorizes the frequency as determinant of the category based focus across retail stores. The study across nineteen food categories sold and marketed across hundred and six supermarket stores in America pointed towards the prevalence of the impact of broader assortments, strong in-house loyalty programs, lower everyday prices and feature advertising as possessing consequences for the consumer based changes with regard to staples, niches, variety enhancers and fill-ins. The study categorized the food categories as comprising the staples (grains, cereals, pulses an flours), niches (milk, cream, yoghurt, cheese), variety enhancers (rice, spices, pickles, sausages, chutneys) and fill-ins(pan-cake mixtures, ready to serve segments, syrups, pasta and likewise mixes).

#### Approach

The structural model was tested with the aid of AMOS software. The study leveraged "Maximum likelihood approach" in order to realize the cross factor causal relationships. The "data model fit" was required as the hypothetical model needs to be supported with the data as well. The standard "structural equation modeling" research methodology assisted in determination of the linkages across the input variables (antecedents or the independent) and the output (dependent) variables. The regression weights as achieved across the AMOS based data modeling; helped in interpretation of the pattern of relationships across the constituent variables in current research activity. The consecutive requirement in data analysis was the establishment of the structures that could possibly exist amongst the factors. The "structural equation modeling" was leveraged to assist in determination of the linkages across the input and the output variables. The "regression weights" as achieved across the AMOS output helped the interpretation of the pattern of relationships across the constituent variables in current research activity. The structural equation modeling was deployed to ascertain the path relationships amongst the dependent and independent factors. The research study relied on Likert scale based pre validated scales to operationalize the factors. The sample size of 600 was undertaken with a valid sample size of 438.

#### Aggregate effect modeling

The aggregate modeling of influences amongst the factors revealed that 'product attributes' seem to exert a statistically significant impact of 0.19 times on the shaping of 'consumer's adoption of private label' tendencies. In association, 'consumer psychographics' seem to exert a statistically significant impact of 0.21 on the shaping of 'consumer's adoption of private label' tendencies; whereas 'store efforts' seem to exert a statistically significant impact of 0.23 on the shaping of 'consumer's adoption of private label' tendencies. This is tantamount to observing that the product attributes and consumer psychographics does impact consumer's adoption of private label across grocery buyers. The aggregate modeling revealed the prevalence of strong under currents across product attributes, consumer psychographics and store efforts as fueling the consumer's adoption of private label brands in grocery segment.



Where product attributes= quality variability+ experience versus search

Consumer psychographics=price consciousness +variety seeking behavior +smart shopping +promotion orientation

Store efforts= Store based indulgence in category management+ Store based efforts to invest in consumer relations

Restraining= Prior Loyalties +Self-Control + Price-Quality Relationship

		Estimate	S.E.	C.R.	Р	Label		
CPP <	PRODUCT_ATTRIBUTES	.189	.039	4.870	***	par_1		
CPP <	CONSUMER_PSYCHOGRAPHICS	.209	.020	10.585	***	par_2		
CPP <	STORE_EFFORTS	.232	.032	7.173	***	par_3		
CPP <	RESTRAINING	054	.039	-1.391	.164	par_4		

The SEM was leveraged to ascertain the possible differences with regard to 'food article choice' as influencing the overall transition of customers from manufacturer brand to private label brands or store promoted options. The control by 'food article type' yielded significant insights into the variations on account of food articles as differentially influencing consumer's consideration sets. A host of earlier studies (Arslanagic, 2014) point extensively towards the food article based choices as differing substantially over categories of pulses, spices, snacks, grains, cooking medium and dairy products. These core items under 'grocery' identify as the daily essential and constitute a larger part of food basket. As per Indian food inflation calculations this constitutes the larger chunk of consistent purchase items with more regular demand and consumption. The practice of 'product differentiation' or 'attribute' based differences could contribute extensively towards the shaping of consumption tendencies and brand switchover inclinations. The nutritional labels (Crosetto, 2020), hygienic packaging (Kerins, 2020) and all weather sustainable tetra packaging (Duran, 2019) based differentiation (Kapelari, 2019) identify as some of the prominent product attributes that could radically change the preferences. The consumer psychographics namely the price consciousness, variety seeking behavior, smart shopping, promotion orientation; also seem to lead to differences in intensity of influences across food article segment. Across all categories of food articles, substantial variations were empirically determined in order to pin point the inclinations for shift from manufacturer brand to private label. Brand transition (Wahi, 2017) in grocery retailing is witnessing a sea change and statistically significant variations on account of food article choice; were deciphered vis a vis structural equation modeling approach. Across the pulses segment of food basket, the sense of inferior quality of private labels seems to change in favor of adoption of private labels or in store brands as the manufacturer brands are nominal and that are priced across premium. Tata Sampan, Fortune and other premium brands across the shelf in pulses section of food retail is gradually giving way to in store promoted private label brands. The presence of distinctness across store promoted brands; seem to set the stage for rational adoption of private labels instead of national manufacturer offerings. This in other words point towards product category characteristics as playing a crucial role in choice making across pulses purchase based decision making. It can thus be concluded that with regard to pulses, retail consumer's consideration sets and respective task simplifying heuristics seem to award more weightage to price consciousness and deal proneness, product quality, information search and product attributes while choosing from a subset of available brand options. In continuity it can be deduced that information as stored across consumer's memory or the information being leveraged for choice making seems to place more emphasis on quality variability and experience search, prior experiences and local sourcing of pulses. The national brand based national sourcing and probability of moisture absorption across pulses, seem to lead to

adoption of locally packed in store brands. Pulses(lentils, beans, dry peas, chickpeas) as a category hence seems to involve the long term focus of consumers in search for nutrient dense foods. Toor, moong, Bengal gram, chilka, urad and lentils identify as most prominently consumed pulses across the region. The pulse production is rising across state and regional level and inelasticity of demand for pulses render the scope for local branding and local in store promotion as a permanent practice in times to come. The product attribute driven inclination for pulse consumption hence offers brightest scope for private label adoption in place of existing national brands for the food commodity. The spices constitute next important segment across food basket in Indian households. Product attributes were observed as exerting the maximum possible impact on consumer private label adoption in case of food grains and pulses. Consumer psychographics were observed to be exerting a considerable impact on consumer private label adoption in case of pulses and dairy products like milk, butter and ghee. Store effort as pushing the consumer based private label adoption was observed as stringent in case of snacks segment. Amongst the pulses and spice preference development, product attributes were observed as strongly influencing the transition to private label brands in case of pulses rather than spices. In similar aspect, the consumer psychographics were observed as leading to transition to private label brands; stronger in case of pulses rather than spices. The restraining forces were also observed as strong exclusively in case of snacks segment.

Ta	ble	2.

	pulses	spices	dairy	snack	oil	grain
CPP < PRODUCT_ATTRIBUTES	.371	.115	.042	.095	.210	.494
CPP < CONSUMER_PSYCHOGRAPHICS	.264	.224	.244	.159	.187	.092
CPP < STORE_EFFORTS	016	.086	.329	.499	.166	.132
CPP < RESTRAINING	097	.075	.074	326	160	038

## 2. CONCLUSIONS

The current research was about empirical classification, exploration and identification of the 'consumer driven' correlates or the 'consumer centric' factors that could probably shape the consumer based inclination to prefer retailer promoted private labels over the manufacturer advertised national brands. Across grocery segments, contrasting observations were reported. The impact of product attributes, consumer psychographics, store efforts and restraining forces was evident in varying proportions.

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