

Assessing the Role of Organized-In-Store Visual-Display Determinants on Consumers' Shopping Behavioral Intentions In India

Anushree Agnihotri Mishra^{1*} Aniket Agnihotri²
1. Faculty of Marketing, K.J. Somaiya Institute of Management Studies &Research, Mumbai 400 077
2. Faculty of Management, S.P Memorial Institute of Technology, Allahabad (Uttar Pradesh), India
*E-mail of the corresponding author: anushree.agnihotri@gmail.com

Abstract

With retail-war becoming harsh, companies desire to be rescued by using experiential approach. Consequently, visual display is gaining huge acknowledgement in the Indian retail scene. But, to our surprise, there is dearth of empirical researches in grocery visual merchandising. Retailers are always interested to have the knowledge of consumers preferences as today's market is consumer oriented. It is at the store's capacity to recognize the preferences of consumers', to concede with their expectations for a grocery store. The paper reveals major visual display determinants with their relative impacts on consumers' shopping behavioral intentions, to help the stores in deciding which dimensions are significant and required to be looked into. This study also adds to the store knowledge as which demographical cluster can be more influenced with which dimension of a store visual display. This work has been conducted through exploratory factor analysis with a varimax rotation, multiple regression analysis and cluster analysis for demographics. Few major results of the study illustrate that the display design with a focus on shelf appearance (as visual display dimensions) entices and triggers the shoppers' outlook towards an organized grocery store. At the same time we cannot ignore the significance of color dimension in shelving the merchandise with all neatness that leads to convenience while shopping.

Keywords: Indian Retail Industry; Visual display; organized grocery; multiple regression analysis

1. Background of the study

The Indian retail Industry contributes about 15% to GDP of the economy. Indian retail market is estimated to be US\$ 450 billion and one of the top four global retail markets by economic value. There are approximately 14 million outlets operating in India but only 4 per cent of them are larger than 500sq.ft. in size, which is a must requirement for an organized store, according to Wikipedia (2011). With the ever dynamic consumer preferences, competition, and a complex global environment, retailers require focusing on seeking ways to sustain and grow. According to Indian Retail Industry Report (2011), "Traditional growth models that focused on rolling out more stores and adding more product lines, no longer enjoy the return on investment they once did. Successful retailers are those who are able to adapt and change to the environment and develop new ways of serving customers, respecting the dynamics of current trends and adapting accordingly." Indian Retail Industry has been graded among the ten major retail markets in the world economy and ranked as fourth (A.T. Kearney GRDI, 2011). This shows that competition has gripped all the sectors of business including retail in India. As an outcome there is an attitudinal shift of the Indian consumer in terms of preference and Value. The store-brand-orientation consists of a set of beliefs, picturesque representations, and feelings about the Store brand. New age Consumers are more responsive and acquainted in relation to product display, formats and practices of retailing to sustain a consciousness for lifestyles and shopping standards. Lately, the Indian Consumers have experienced a revolution in organized grocery shopping scenario. They are willingly accepting the change in their lifestyles by shifting from conventional shopping notions for groceries to upgraded standards in categories that deliver enhanced quality and experience (Agnihotri and Oburai, 2010). The above understanding reflects that, a store should create a shopping environment which has an appealing merchandise display that can trigger the shoppers' buying eagerness and intent, which can deal with the changing environment and rising consumer expectations too. The sale of a merchandise depends on a range of retail factors but visual display is one determinant which speaks louder than all else. Holly et al. (1991) finds that 80 per cent of our impressions are shaped by sight.

1.1 Understanding Visual Display

Davies and Ward in 2005, found Visual merchandising playing an imperative role in the development of physicality of a store. Visual Display can be viewed as all the things the shopper witnesses, both exterior and interior the store, which shapes a constructive impression for a store and results in higher purchase action at the consumers' end. More attempts should be made to improve the visual merchandising determinants so as to make it simple and easier for the shoppers to locate the



stuff they need (Agnihotri and Oburai,2010). The Visual Stimulation term figured by Kerfoot et al. (2003) has a significant position in the lives of retailers and academicians (McGoldrick, 2002). Still Lea-Greenwood(1998) finds visual display as a fraction, scantily worked upon. The value magnitude of Visual Merchandising had been recognized in the world long back say by 1897. In 1897, Lyman Frank Baum realized a need for 'The Show Window' magazine regarding window display. Holly, et al. (1991) has also acknowledged that Visual Merchandising is second only to effective customer relations.

The retail literature is slowly but surely flourishing for in-store physicality and display in Apparel, Accessories and fashion retailing (Thompson, Chen, 1998) almost everywhere in the world leaving grocery front somewhere at the backside. The attention is largely nonexistent for visual presentations at grocery stores. Till now the literature was spinning around the macro level aspects of retail (retail formats, organized Indian retail and Visual Display & Store Design) which appeared ill-suited for all the product categories to view this customer facing contact channel called Visual Merchandising (Agnihotri and Oburai,2010). The above literature paves a way for conducting an empirical study in order to assess the major Organized-In-Store Visual-Display determinants from Consumers' view point.

2. Dimensions under this study

The extant literature has less to talk about the outs of a store. Here for this study we have taken three aspects of the store-outs viz. marquee, entryway and the window display. Marquee refers to a 'special exterior sign' designed to communicate the name of a grocery store (organized grocery setting for this study). It is the first differentiating factor for a store from the rest to which a shopper comes across. For the purpose of this study, the entryway can be defined as a passage to enter a store including the flooring. Success in catching an eye of shoppers through windows depends on how fine and meaningful your store windows are dressed up. It is one of the finest way-outs of improving the appearances and impressions. It is how ingeniously one has exhibited the best of merchandise in windows. Bloch et al. (1986) found that shoppers' may look at store window display primarily for leisure and relaxation. But it may act as a trigger factor to induce them to enter the store later on. The store-outs are alike the monogram on the shirt, as it may not make the shirt do better but it lets the person wearing it feel good (Ken Van, 1999), similar can be applicable to the store-outs, the shoppers' should like the same and feel good. And when the store-ins comes into picture the store layout, color, lighting (in-store), in-store signage, merchandise presentation (shelf-display for the focused study) and fixtures are said to be the most needed dimensions for in-store visual merchandising. As Grossman et.al. (Winter76/77) acknowledged in their book that "customers respond enthusiastically to the assortments attractively displayed; to the signs which silently communicated both feature & benefit; to lighting subdued sufficiently to provide comforting contrast to regular supermarket illumination." Store layout cannot be ignored if the in-stores are concerned. This argument holds a support from the explanations given by David Griffith in 2005, a better store layout is that which helps a shopper's way-finding inside a store. Thus, becomes crucial for the retailer's success.

Bellizi and Hite (1992) found color as an important aspect of in-store atmospherics, which is a way to influence shoppers' emotional shopping behavior and thereby impacting their cognitive product evaluations. This study tries to capture the impact of in-store fixtures also to display the groceries. Several types of fixtures are used to maximize the appearances of the merchandise (Liebeck, 1995). We have found that the literature related to groceries is unvoiced on certain dimensions considered for this study. Consequently, we have used observation research to let the dimensions speak for themselves.

3. Research Objectives

- Exploring the usage and utility of Visual display determinants by Indian Groceries retailers.
- Understanding the comparative magnitude of visual display determinants' dimensions used at factor level.
- Discovering the relevance of these identified determinants in the lives of Indian consumers.

4. Research Methodology

The research has been framed to be organized through two stages. As the Store-level determinants in this paper are strategic in nature, shoppers and store managers were deemed to be the appropriate informants, as they possess prior understanding of the determinants under this study.

Stage One: This stage is organized through exploratory design. An observation research (In-store and out-store) has been carried out in six organized pan-India grocery retail chains of New Delhi, to understand the visual display determinants they use. As an outcome we extracted nine determinants. Forming the below stated conceptual model.

```
4.1 Proposed Conceptual Model Specifications
```

 $CSIV(y) = \beta_1 + \beta_2 Marq + \beta_3 EWay + \beta_4 SWin + \beta_5 SLay + \beta_6 Col + \beta_7 Lgh + \beta_8 InStSign + \quad \beta_9 MPre + \beta_{10} Fix Where$

CSIV(y) = Consumers' Shopping Behavioral Intentions based on Visual display



Marq = Marquee of the store

EWay = Entryway SWin = Store windows Slay = Store layout Col = Color scheme

Lgh = Lighting and illumination inside the store

InStSign = In-store signage

MPre = Merchandise presentation of the store Fix = Fixtures used for displaying the merchandise

Stage Two: A field survey was conducted to find the significance and value the consumer connects with the above recognized determinants, a self-administered structured questionnaire has been constructed, piloted and finally administered. The samples have been collected through simple random sampling method where every tenth consumer has been taken to be the sample unit. The research has been framed to be organized through empirical research design with the help of multivariate analysis for which data has been collected through self-administered structured questionnaire.

The study has been conducted in New Delhi, a cosmopolitan region, which has a mixed population of almost all the Indian states. This may facilitate while generalizing the results of this study. A random Sample of 150 respondents has been drawn from randomly selected 3 stores of each of all the six pan-India grocery retail chains. Additionally, store managers are vital in obtaining information about the store's strategic processes(Kumar et al.,1993) as they have utmost insight into these store practices(Child,1997) and have the most influence on company's outcomes(Stubbart, 1989). Therefore, besides the above data points we have taken the expert opinion of 18 (3stores * 6 retail chains) store-managers as well. The data were collected from the data-points outside the grocery stores immediately after their experience and contact with the visual display dimensions, on randomly picked week days. For the final analysis of the study, we have used 148 completed instruments after striking out the missing records from the sample.

4.2 Research Instrument and Measures

Scales by Manolis et al. 1994 (SIS) and Dickson & Albaum 1977 (CIRS) have been referred and used in the construction of the instrument. To scrutinize the face validity of the measures included and negated in the instrument, store managers of the six grocery retail chains under this study were asked to give their expert opinion. By this means, the final instrument contained 32 items. All the items have used 7-point semantic differential pairs as descriptor endpoints ranging from negative (not attractive at all) to positive (very attractive). The instrument has been pilot-tested on 20 respondents belonging to different age groups, household income levels and Socio-economic backgrounds to see whether the scales are fitting in the Indian context or not. There were no changes required based on the responses. The unchanged instrument was thus been used for the further data collection. The factor scores in this research paper are the result of factor calculation within the exploratory factor analysis and not the summative values of factor items.

4.3 Data Analysis and Findings

In order to map the affects of the visual display dimensions on the Consumers' Shopping Behavioral Intentions we have used exploratory factor analysis with a varimax rotation, multiple regression analysis and cluster analysis for demographics using SPSS 16.0. To explain a large set of thirty-two measured variables, we have used exploratory factor analysis with a varimax rotation that yielded a small set of seven latent constructs. The constructs which got extracted for the analysis were:

Display design; Walks and Signage; Color rules and layout; Shelf appearance; Price of merchandise; Store illumination; Quality of merchandise

We have anticipated that these seven constructs are explaining the substantial portion of the variation in the original 32 measures' (correlational) matrix. So these constructs can be employed to represent the observed variables or measures (Table 1).

Thus the Final model stands as:

 $CSIV(y) = \alpha_1 + \alpha_2 Display \ design + \alpha_3 Walks \ and \ Signage + \alpha_4 Color \ rules \ and \ layout + \alpha_5 Shelf \ appearance + \alpha_6 Price \ of \ merchandise + \alpha_7 Store \ illumination + \alpha_8 Quality \ of \ merchandise$

After running a multiple regression for 'Consumers Shopping Behavioral Intentions based on Visual display' on the factor scores of the seven extracted dimensions, we found some interesting results which demonstrates that, factor 1(Display Design) is most significant with a t-value of 10.574 and a β -coefficient of .607. Followed by factor 4(Shelf appearance) having 7.060 and .406 of t-value and β -coefficient respectively. Factor 3 (Color rules and layout) proves to be slightly less significant (t = 2.584, β = .148) for the grocery shoppers as compared to factor 5 (Price of merchandise with t = 2.872, β =.165). This study finds insignificant results for factor 2(t=1.125, β =.065), factor 6(t=.985, β =.057) & factor 7(t=-.155, β =-.009), that means walks and signage; store illumination &; quality of merchandise are not of great relevance to the Indian organized grocery shoppers as far as visual merchandising is concerned in comparison to the above predicting factors (Table 3). Price instead of



being a non-visual merchandising element gets supported by the results as it has a strong impact on the shoppers overall assessment of store visual merchandising. We attempted to keep it aside of this study but shoppers' proclivity were against our premise.

4.4 Demographical analysis:

To further investigate the shoppers' tendency to be influenced by the visual merchandising dimensions in a grocery setting we used cluster analysis along with mean adjusted values. The results drawn over 148 data-points for demographical analysis have shown the following classification (Table 4):

- Cluster 1 comprises of 22 cases (shoppers) between the age group of 41-50 years with graduate level education having the family annual income of 6.1-10lacs annually, working in a public service organization having a nuclear family with 3 to 5 members.
- Cluster 2 comprises of 58 cases (shoppers) between the age group of 21-30 years with postgraduate level education having the family annual income of 3.1-6lacs annually comprises of housewives having a nuclear family of 3 to 5 members' size.
- Cluster 3 comprises of 27 cases (shoppers) between the age group of 41-50 years with graduate level education having the family annual income of 1.5-3lacs annually nonworking housewives having a nuclear family with 3 to 5 members
- Cluster 4 comprises of 41 cases (shoppers) between the age group of 31-40 years with post-graduate level education having the family annual income of 1.5-3lacs annually working in a private service organization staying in a nuclear family with 3 to 5 members.

	TABLE -4	Final Cluster Centers					
		Cluster					
		1	2	3	4		
age_	6_1	3	1	3	2		
Edu_6_1		2	3	2	3		
Income_6_1		4	3	2	2		
occu_6_1		4	2	2	5		
famtyp_6_3		2	2	2	2		
famsize_6_3		2	2	2	2		

The mean adjusted values (.1084189, 0.1359388, 0.1975270) for shoppers in cluster 1 shows that they are positively getting affected by the visual merchandising measured variables in factors 1 (Display Design), factor 5 (Price of merchandise) and factor 7 (quality of merchandise) of organized grocery stores. And inversely getting effected by factors 2 (walks and signage), 3 (Color rules and layout), 4 (Shelf appearance) and 6(store illumination). Nobody is indifferent to the factors in this cluster of sample.

Shoppers in cluster 2 are (.0757218, 0.0702177) indifferent towards the affects of factor 1 (Display Design) and factor 5 (Price of merchandise) but favorably influenced by factors 6 & 7 with these mean adjusted values 0.1236642 & 0.1149717. Factors 2, 3 & 4 yielded negative impressions (-0.0169013, -0.0087144 & -0.0496583 respectively) from these shoppers. Cluster 3 cases hold a strong indifferent behavior towards variables of factors 1, 2, 4 & 5 (.0010763, 0.0506516, 0.0570178, 0.0220703) and they are more likely to respond unfavorably in the direction of factors 6 & 7 variables (-0.1244335, -0.2021067). Result yielded only positive influence with factor 3 (0.1757903). Cluster 4 is demonstrating a negative impact after interacting with the variables of factors 1, 3, 5 & 7 with the mean adjusted values -0.1703111, -0.0961166, -0.1696977, -0.1543307 respectively. Cases under cluster 4 have no mess with or without 2nd & 4th factors (0.0874221, 0.0865410). But they are very much receptive to factor 6 variables (0.1158588).

5. Discussion and Implications

The major contribution of this paper is to facilitate the merchandise planners of Grocery business while developing strategies in order to win the competitive advantages in Indian retail landscape. Apart from visual display determinants, there are few imperative expectations of customers shopping at modern formats; they are-staff politeness, affordable pricing and the availability of latest merchandise. Next to the analysis, seeing through the results (Table 3) collectively we find that dimensions viz. Display design, Shelf appearance, price and color rules & layout are influencing favorably to the shoppers whereas dimensions viz. walks & signage, store illumination and quality of merchandise are posing insignificant to the



masses. Display design with a focus on shelf appearance (as visual display dimensions) entices and triggers the shoppers' outlook towards an organized grocery store. At the same time we cannot ignore the significance of color dimension in shelving the merchandise with all neatness that leads to convenience while shopping.

As we look into the clustering of sample, it is giving conspicuous results of variance in preferences. Cluster 1 and cluster 4 are screening strong variations in their preferences, as the factors having positive impact on cases of cluster 1 are posing negative influences on cases of cluster 4(factors 1, 5 & 7). Identical results are with cases of cluster 2 and cluster 3; they are all contrary in their preferences for factors 6 & 7. Cluster 1 and cluster 2, more or less exemplify same kinds of distaste except for store illumination dimension. Color rules & layout being very negligibly focused in the grocery stores studied here, they are likely to impact conversely to the cases of clusters 1, 2 & 4. This study contributes an all-inclusive picture of visual display of the modern organized grocery stores in India. From the managerial viewpoint, this paper highlights the importance of various dimensions of a grocery store visual display. The store VM managers or merchandise planners can get a better picture from this study as to what dimensions are required to be looked into and to be followed.

6. Conclusion

From the results, we can articulate that in the Indian organized grocery setup today's consumer knows what she has come for in a store and don't bother much about the entrance, signage and illumination inside a store but is very much fascinated by the display design dimension and shelf appearances, she gets delighted with the color schemes and patterns but at the same time troubled by the product pricing. Since this paper is among the initiating efforts to provide an all-inclusive scene of an Indian grocery store visual display, its findings are not all definitive. Therefore, this area needs lot of empirical researches on each aspect of it, for the enhancement of validity and generalizability of the outcomes.

References

Agnihotri A. and Oburai P.(2010). "Shoppers' interaction with visual merchandising elements in organized grocery stores", Proceedings of 3rd IIMA Conference on Marketing Paradigm for Emerging Economies.

A.T. Kearney Retail Survey, (2011), Online Available: http://www.dessenceconsulting.com/pdf/Doing%20Business%20in%20India%20-Unlimited%20Opportunities.pdf

Bellizi J.A. and Hite R.E (1992). "Environmental color consumer feelings and purchase likelihood", Psychology & Marketing, Vol. 9, pp. 347–363.

Bloch Peter H., Sherrell Daniel L and Ridgeway, N Nancy (June 1986). "Consumer Search: An Extended Framework", Journal of Consumer Research, Vol. 13, No. 1, pp. 119.

Child, J. 1997. Strategic choice in the analysis of action, structure, organizations and environment: retrospect and prospect. Organizational Studies 18(1), 43-76

Davies Barry J. and Ward P. (2005). "Exploring the connections between visual merchandising and retail branding", International Journal of Retail & Distribution Management, Vol.33, No.7, pp.505-513.

Denstadli J.M., Lines R. and Gronhaug K. (2005). "First mover advantages in the discount grocery industry", European Journal of Marketing, Vol.39, No.7/8, pp. 872-884.

Dickson, John, and Gerald Albaum (1977). "A method for developing tailor-made semantic differentials for specific marketing content areas." Journal of Marketing Research, Vol. 14, pp. 87-91.

GCI rankings, (2006-2007), Online Available: http://www.weforum.org/pdf/pressreleases/india.pdf

http://www.researchandmarkets.com/reports/1582987/indian retail industry 2011

Grewal and Baker, J.(1994) "Do Retailing Environmental Factors Affect Consumers' Price Acceptability? An Empirical Examination", International Journal of Research in Marketing, Vol. 11, pp.107-115.

Griffith, David A. (2005). "An examination of the influences of store layout in online retailing." Journal of Business Research, Vol. 58, No.10, pp1391-1396.

Grossman Louis, Dickinson Roger A.(Winter76/77). Visual Merchandising (Book), Journal of Retailing, ,Vol. 52, No. 4, p82.

Henson R.K., Capraro R.M. and Capraro M.M.(2001). "Reporting practice and use of exploratory factor analysis in educational research journals", Little. Rock, AR, 42.

Kerfoot S., Davies B. and Ward P. (2003). "Visual merchandising and the creation of discernible retail brands", International Journal of Retail & Distribution Management, Vol.31, No.3, pp.143-152.

Kumar, N., Stern, L.W. and Anderson, J.C. (1993). Conducting inter-organizational research using key informants. Academy of Management Journal 36(6) 1633-1651.

Lea-Greenwood G. (1998). "Visual Merchandising: a neglected area in UK fashion marketing?" International Journal of Retail & Distribution Management, Vol.26, No.8, pp.324-330.

Liebeck, Laura (June95). "Hills stocks the pantry", Drug Store News, Vol. 17, No. 2, pF6, 3p.



Levy M. and Weitz B.A. (1998). Retailing Management, Irwin McGraw-Hill, Boston.

Manolis, Chris, William W. Keep, Mary and David (1994). "Testing the underlying structure of a store image scale" Educational and Psychological Measurement, Vol.54, pp.628-645.

McGoldrick P. (2002). Retail Marketing, 2nd Edition, McGraw-Hill.

Ronald S. Landis and William P. Dunlap (July 2000). "Moderated Multiple Regression Tests are Criterion Specific", Organizational Research Methods, Sage Publications, Vol. 3, No. 3, pp.254-266.

Sinha, P. K. and Banerjee, A. (2004). "Store choice behaviour in an evolving market", International Journal of Retail & Distribution Management, Vol. 32, No.10, pp.482–494.

Sinha, P. K. and Uniyal D.(2004). "Using observational research for behavioural segmentation of Shoppers", Journal of Retailing and Consumer Research, Vol.12, No.1, pp. 35-48.

Stern, H.(1962), "The Significance of Impulse Buying Today," Journal of Marketing, Vol. 26, pp. 59-62

Stubbart, C. 1989. Managerial cognition: a missing link in strategic management research. Journal of Management Studies 26, 325-347

Thompson K.E. and Chen Y.L. (1998). "Retail store image: a means-end approach", Journal of Marketing Practice: Applied Marketing Science, Vol. 4, No.6, pp.161-173.

Underhill P. (1999). Why We Buy: The Science of Shopping, New York NY: Simon & Schuster.

Van Treese, Ken (May/Jun99). Looks Matter, Journal of Property Management, Vol. 64 No. 3, p 86, 4

Zeithaml Valarie A. (1988). "Consumer Perception on Price Quality and value: A means-End Model and Synthesis of evidence" Journal of Marketing, Vol.52, No. 3 (July issue), 2-22.



Rotated Component Matrix

TABLE -1 Findings from the factor analysis

	Component						
	Display	Signage	Colour rules	Shelf	Merchandise	Store	Merchandise
Product Presentation	.722			Appearance	Price	Illumination	Quality
Display fixture	.712						
Good store-layout	.702						
Signboards	.652						
Store lights	.650						
Attractive Marquee	.623						
Display of signage	.584						
Main Store signboard	.464						
Store Layout	.517						
Understandable symbols		.782					
Walks		.686					
Helpful signs		.672			.423		
Easy to navigate signs		.522					
Colorful display			.709				
Neat display			.705				
Color Scheme			.648				
Convenience			.471		.420		
Well organized layout				.691			
Bright store				.662			
Crammed merchandise				.528			
Attractive store				.463		.423	
Low prices					.674		
Price for value					.667		
Easy to find items			.448		.502		
Attractive lights						.791	
Pleasant to shop						.695	
High product quality							.658
Crowded shopping							.629
Unlimited variety							557



TABLE -2 Model Summary

			Adjusted	Std Error of the
Model	R	R Square	R Square	Estimate
1	.769 ^a	0.591	0.568	0.82243

Predictors: (Constant), Factor score 1, Factor score 2,

Factor score 3, Factor score 4, Factor score 5,

Factor score 6, Factor score 7

TABLE -3 Coefficients^a

	Standardized		
	Coefficients		
Model	Beta	Т	Sig.
1 (Constant)		62.325	0.000
Display design	0.607	10.574	0.000
Signage	0.065	1.125	0.263
Colour rules	0.148	2.584	0.011
Shelf appearance	0.406	7.060	0.000
Price of merchandise	0.165	2.872	0.005
Store illumination	0.057	.985	0.327
Quality of merchandise	-0.009	-0.155	0.877

a. Dependent Variable: Consumers' Shopping Behavioral Intentions based on Visual display

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: http://www.iiste.org

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar

























