



Antecedent Effect of Government Support, Brand Image and User Innovativeness on Attitude Towards Adoption of Fintech Services

Dr Priyanka Anand¹, Dr.Manjari Agarwal²

Abstract

Purpose –The main objective of this paper is to find out association of Government Support (GI), Brand Image (BI) and User Innovativeness (UI) on Attitude Towards Adoption of Fintech Services by customers of cooperative banks of Delhi, India.

Design/methodology/approach –Present study is a descriptive study for which primary data was collected by circulating well-designed questionnaire through online mode. In the questionnaire questions were based on five-point likert scale for both dependent or independent variables. Purposive sampling technique was opted from a sample of 682 respondents. The validity and reliability of constructs were verified with the help of CFA analysis technique using AMOS- analysis of moments structures. Goodness of fit of the model and regression among variables were verified by using SEM- structural equation modeling approach.

Findings –The results showed that the Government support, Brand Image and User Innovativeness had a considerable connection with the Attitude towards adoption of fintech services provided by banks.

Practical implications –This empirical research seeks to establish a fundamental success factor as well as an additional driver for FinTech establishments. The findings would help mobile service businesses and banks to understand the economy of scope in providing services at a low cost while offering optimal social benefits. The research will help financial institutions to gain insight into how to provide finance services via using updated technology in order to manage cross-border operations for low-income consumers in remote areas.

Originality/value – The results of the study clearly indicated a robust connection amongst Government support (GS), Brand Image (BI) and User Innovativeness (UI) with Attitude towards adoption of fintech services. Based on the findings of the study it is utmost essential on the part of policy makers to come up with economic reforms and technological reforms for ensuring robust financial growth.

Keywords: Government Support, Brand Image, User Innovativeness, Attitude Towards Adoption of Fintech Services

Introduction

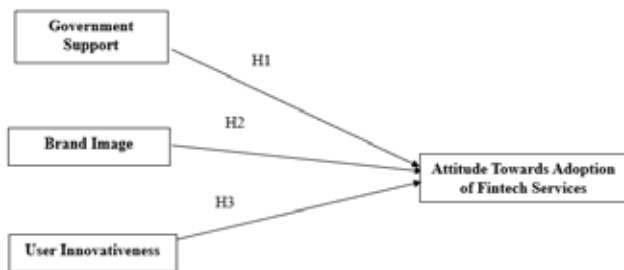
Fintech services means use of digital technology in the field of finance. The area of digital technology is very wide that includes block chain technologies, cloud computing, big data sources, and intelligent investment consulting etc. (Gholami, 2021; Paulus, Jordanow&Millemann, 2022). According to recent survey on the data, global Fintech investments and number of global Fintech companies have been increased more than 12 times than before. Many Fintech companies provide services like banks provide to their customers. They are more concerned for giving customers with a best user experience like mobile banking, portable banking apps, online payment system, robo-advisors, block chain technologies, peer-to-peer advancing podiums to cryptocurrencies, cloud computing etc. These technologies are helpful in reshaping traditional banking, increasing efficiency and accessibility in the financial sector. The main aim of using Fintech services in banking sector is to improve banking efficiency and the experience users in these services (Zavolokina et. al., 2016; Patil, Dwivedi & Rana, 2017). Now it has become important for researchers world-wide to study the factors that influence Fintech adoption by bank users with the purpose to provide them better fintech services and maintain healthy contact of banks with its users (Priem et. al. 2012; Priem, R. L., & Swink, M., 2012). Keeping in view the importance of fintech services, present study is being performed with the active customers/ users of fintech services provided by cooperative banks of Delhi. The users who are residing in Delhi were considered for this study. The three important factors that influence attitude towards adoption of fintech services were taken in account. These factors are Government Support (GS), Brand Image (BI) and User Innovativeness (UI). The authors tried to establish an association between Government Support, Brand Image and User Innovativeness with Attitude

¹ Assistant Professor, Institute of Innovation in Technology and Management, Janak Puri, New Delhi. E mail Id : priyanka.anand014@gmail.com

² Assistant Professor, Trinity Institute of Professional studies, Dwarka, New Delhi. E mail Id : manjari.tips9@gmail.com

Towards Adoption of Fintech Services. On the basis of research objectives following hypothesized model was proposed and tested.

Figure 1: Hypothesized Model



Objective of the Study

The objective of present research article is concerned with to observe the extent of association between Government support (GS), Brand Image (BI), User Innovativeness (UI) and Attitude towards adoption of Fintech Services provided by banks.

Literature Review

Government Support & Fintech adoption

Government support is being considered as one of the key factors of Fintech adoption (Yee-Loong Chong et. al.,2010; Papavasiliou, 2019).The reason behind faith on government support is that it has good credibility. it has power to make Fintech services more adequate to potential consumers. Numerous research supported the need for government assistance and came to the conclusion that the adoption process has a strong positive correlation. Government support facilitates proper application of technology in financial innovation which in turn enhances the integrity and loyalty of products or services. Many previous researchers have found positive influence of government support on technological adoption which provides valid ground for the government to develop relevant policies use of technology in financial innovation (Kiwanuka, A., 2015; Marakarkandy et. al.,2017). Government assistance is evident in the current study and is linked to structural advancement, enactment of legislation, and regulatory frameworks that can promote the Fintech services sector.The aforementioned hypothesis has been established in order to study the connection between the level of government support and attitudes toward adoption.

H1: There is a considerable relationship between government support and attitudes towards adoption of fintech services.

Brand Image& Fintech adoption

Basically, this paper says that brand image is an intangible thing that has an economic value. It shows how different it is from other abstract and unique ideas, so it gives us a full

picture of how it affects people. Service providers' brand has a big impact on how reliable their services are, and it helps people reach their goals (Saleem & Rashid, 2011; Park, Kim& Ohm, 2015). Sang et al. (2010) concluded that One of the main reasons people choose to use GAIS (Government administrative information system) is because it gives them a better reputation with their peers.Lots of research on Fintech has shown that brands have a big impact on how users feel about quality, value, and overall satisfaction (Shapiro et. al., 2019; Riyadh et. al., 2010). When we receive technical services, Users must provide a lot of personal information further good sign image can increase the user's confidence because it effectively reduces risk (Semuel&Lianto, 2014). According to psychology based on results of research demonstrate that a well-crafted product image can lead to increased user confidence. (Lee & Chung, 2009). That's why there is a product image guarantee of products and services, which allows users to clearly define their service orientation help companies and users build strong relationships, improve user awareness and achievement, ultimately influencing customer acceptance and faith (Siamagka et. al., 2015). Based on the research, we've come up with the following ideas:

H2: Brand Image has a strong correlation with fintech adoption.

User Innovativeness & Fintech Adoption

This study defines user innovativeness as the degree of early adoption of a particular innovation; i.e., the willingness of users to experiment with novel products, processes, or services. People who are highly innovative can tolerate the high level of uncertainty and to use the innovation with more enthusiasm. In other words, they have a lower propensity to notice less averse to risks and more open to technological advancement (Leicht, Chtourou& Youssef, 2018).Adeiza et al.stated thatHumans have an inherent ability to innovate, which indicates how interested users are in a given field (Adeiza, Azizi & Marissa, 2017). Basis the previous research, the following hypothesis is proposed:

H3: There is a considerable relationship between User Innovativeness and attitudes towards adoption of fintech services.

Research Methodology

Research Instrument

An internet-disseminated, well-designed questionnaire (Table 2) was employed to gather the primary information needed for the research. For all types of variables including dependent and independent nature, five-point likert scales were used.The sampling techniques used for the study was purposive technique applicable on the sample of 682 participants. The participants for this study were active customers of cooperative banks residing in city Delhi. Region of Delhi is chosen as per the convenience of the researcher. Further this is the place where dynamic people

belong to different states live. To analyse the reliability of the collected data, a pilot-study was conducted on 80 customers. Cronbach's alpha (CA) was found to be greater than 0.7, indicating the data were trustworthy. Around 810 well-structured online questionnaires were circulated to customers. These questionnaires were circulated with the help of employees of the banks. Only 714 correct and beneficial responses were received from these surveys that were sent. All the records with missing information were deleted and 682 responses in total were entered into SPSS for 20 more examinations. Nearly 682 respondents made up the sample size, and 13 questions with at least 10 answers were incorporated in the poll as recommended by Kline (2011). Many customers from various financial brackets,

professions, age groups, and genders were included in the sample. In the sample, men made up 57.91 percent of respondents, while women made up 42.08 percent. The majority of respondents (38.85%) were between the ages of 30 and 40, while the minority (less than 8.06%) were over the age of 55. Majority of the participants were from university degree in terms of education. Detailed Table 1 displays the demographic breakdowns of the various participants.

Sample Size: The sampling techniques used for the study was purposive technique applicable on the sample of 682 participants. The participants for this study were active customers of cooperative banks residing in city Delhi. Region of Delhi is chosen as per the convenience of the researcher.

Table 1. Demographic Profiles

Demographic characteristics (DC)	Sample Size (N)	Proportion%
Education		
12th	120	17.59%
Graduate (G)	252	41.34%
PG, Postgraduate	198	29.0%
Other	112	16.41%
Gender		
Male (M)	395	57.91%
Female (F)	287	42.08%
Age		
20 years -30 years	186	27.27%
30 years -40 years	265	38.85%
40 years -50 years	176	25.80%
Above 50 years	55	8.06%
Income p.a (Individual/Family)		
3 -8 lakh	269	39.44%
8-13 lakh	195	28.59%
13-18 lakh	164	24.04%
Above 18 lakhs	54	7.91%
Marital Status (MS)		
Married	469	68.76%
Unmarried	213	31.23%
Nature of Employment		
Self- Employed (Business)	68	9.97%
Service	382	56.01%
Student	88	12.90%
Profession	144	21.11%

Source: Authors Own

Table 2 Measurement Scale and Constructs

Construct	Measurement Scale	Source
Attitude Towards adoption (AT)	AT 1: I am confident in using Fintech services AT 2: I gain enjoyable experience while using fintech facilities AT 3: I am interested in using Fintech facilities	(Grabner et al.)
Government Support (GS)	GS 1: The support of the government improves the usage of Fintech services GS 2: There exists a favourable legislation for the usage of Fintech services GS 3: There exists an active infrastructural support towards fintech services.	(Marakarkandy et al.)
User Innovativeness (UI)	UI 1: Whenever there is any new product in the market, I look forward to try it UI 2: Amongst all my friends, I am the first to make use of a new tech product	(Zhang et al.)
Brand Image (BI)	BI 1: I think I'm more comfortable with brands that I know and trust. BI 2: The bank is well-known for being reliable and trustworthy.	(Ruparelia et al.)

Source: Authors Own

Data Collection Method

For this primary research an internet-disseminated, well-designed questionnaire was employed to gather the information needed. For all types of variables including dependent and independent nature, five-point likert scales were used. However, some secondary data from both published and unpublished records have also been used to showcase the references. The participants for this study were active customers of cooperative banks residing in city Delhi.

Tools for Data Analysis

The confirmatory factor analysis method has been employed to determine the relationship between variables that are dependent on each other and those that are independent of each other. This method has been implemented both in AMOS and in SPSS Version 20.0.

Construct Validity & Discriminant Validity Analysis from CFA

In order to measure construct reliability and validate the results, we built a confirmatory CFA model using AMOS (amplitude of moment structures version 20) and ran a regression analysis to see if there was an association between endogenous and exogenous variables. In total, we wrote 712 responses for SPSS, including things like outlier removal, screening, and cleaning. We also got rid of 30 responses. We were able to look at individual factors' reliability and validity in Table 3, and the composite reliability, AVE, standard error, and beta factors of all factors were all found to be valid and reliable according to standard parameters.

Table 3. Summary of CFA i.e., Confirmatory Factor Analysis

Variables	Label	SL	R2	CR	AVE	SMC
Attitude Towards adoption (AT)	AT 1	.88	.77	0.879	0.655	.70
	AT 2	.87	.78			.64
	AT 3	.83	.68			.66
Government Support (GS)	GS 1	.56	.31	0.863	0.564	.48
	GS 2	.80	.64			.62
	GS3	.82	.66			.67
User Innovativeness (UI)	UI 1	.83	.71	0.920	0.68	.67
	UI 2	.80	.61			.72
Brand Image (BI)	BI 1	.83	.71	0.915	0.660	.64
	BI 2	.78	.63			.70

Source: Authors Own

SL here refers as Standardized Factor Loading

SMC here means squared multiple correlations

AVE here refers as average variance extracted should be more than the recommended value i.e., 0.5 (Ruvio, Shoham, & Brenčić, 2008).

CR here refers as Composite Reliability should be more than the recommended value i.e., 0.7 (Chin, W. W.,1998)

Cronbach's alpha (R2) should be more than the recommended value i.e., 0.8 (Fornell, C., & Larcker, D. F.,1981)

In order to investigate all aspects of the variables in the indicated hypothesised model, model fitness was classified as CFA, or confirmatory factory analysis (CFA; Ho, 2006). The fit for the model was validated to have appropriate statistics. The CFA outcomes are given in Table 3 in terms of scale validity and goodness of fit. All of the output obtained

by the AMOS ensures that not any of the alterations are required and that all of the variables have a good goodness of fit (GOF). A good model fit index contains a high value of the chi-square/degree of freedom (CMIN/df), a higher statistical value of the goodness-of-fit indicators (GOF), such as the GFI and AGFI, and an elevated value of the badness-of-fit indicators (BOF), such as the RMSEA. It came to light that all of the indicators in this model fit with the expected parameters, which is consistent with previous investigations (Steiger, 2007; Hooper et al., 2008, Rai, Gupta & Tyagi,2021). The analysis's findings were satisfactory when contrasted with industry norms. Co-variance is shown in Table 4 and co-relation between attitudes toward adoption, government support, user innovation, and brand image are shown in Table 5. All of these components' values for p were satisfactory (p> 0.05), revealing a strong connection among them.

Table 4: Covariances among factors (First Order CFA)

			Estimate	S.E.	C.R.	P
Attitude towards Adoption (AT)	<-->	GS	.178	.020	9.117	***
Government Support (GS)	<-->	UI	.215	.024	9.019	***
User Innovativeness (UI)	<-->	BI	.177	.019	9.179	***
Brand Image (BI)	<-->	AT	.174	.017	9.176	***

Source: Authors Own

Table 5. Corelation among factors

	AVE	MSV	ASV	GS	AT	UI	BI
Government Support (GS)	0.564	0.146	0.133	0.770			
Attitude towards Adoption (AT)	0.655	0.375	0.274	0.381	0.765		
User Innovativeness (UI)	0.680	0.288	0.227	0.382	0.522	0.772	
Brand Image (BI)	0.660	0.286	0.219	0.380	0.519	0.769	0.768

Source: Authors Own

Thumb Rule= AVE> MSV> ASV

AVE here refers as average variance extracted

MSV here refers as maximum shared squared variance

ASV here refers as average shared squared variance

Model Fit indices

All of the model fit parameters were found to be in line with the model's recommended value, suggesting a good fit of the data (Steiger, 2007; Hooper et. al., 2008; Rai & Gupta, 2021). The probability is 0.001. Chi-square = 336, df = 72, CMIN/df = 4.49, Comparative Fit Index (CFI) value of 0.94, Goodness-of-Fit Index (GFI) of Model Fit value of 0.92, Tucker-Lewis Statistics Index of 0.93, RMSEA (badness of Fit Indicated) of 0.071, RMR = .044.

Results of Path Analysis (Structural Model)

Path investigation was carried out for applying the investigation to the specified hypothesis. The outcome of the path analysis is displayed in Table 6. The next table exhibits the key ratio values and regression weights, which highlight a significant connection between Government Support (***, p 0.05) Attitude towards adoption. Significant results also find with User Innovativeness (***, p 0.05) and Brand Image (***, p 0.05) with Attitude towards adoption. As a result, all three Hypothesis 1, Hypothesis 2 and Hypothesis 3 have been confirmed by the findings of the present investigation, revealing that they are plausible.

Table 6: Results of Structural Model

Path	Estimates	S.E.	C.R.	P
AT<---GS	.237	.041	5.49	***
AT<--- UI	.459	.061	7.28	***
AT<--- BI	.458	.059	7.26	***

Source: Authors Own

Conclusions

The study revealed a strong association of Government Support, Brand Image and User Innovativeness on Attitude Towards Adoption of Fintech Services by customers of cooperative banks of Delhi, India. The results of this paper consistent with the conclusion of some previous researches (Kesharwani et al., 2012; Marakarkandy et al., 2017). Consequently, it is of paramount importance for government, banks and policy makers to devise innovative technologies, economic policies or practices that can enable individuals to access the fintech services, financial and capital markets and other online payment services with greater proficiency, in order to foster sustainable financial development. The urgent need to comprehend efficient implementation of technology in the financial sector and create awareness among customers/ individuals about the use of these fintech services. Government departments must take strong action to foster awareness about financial technology usages amongst the population through the implementation of seminars, workshops, and discussion sessions. In a rapidly evolving financial environment, the present effort provides evolving decent practices for policy makers, controllers and depositors. This empirical research seeks to establish a fundamental success factor as well as an additional driver for FinTech establishments. The findings would help mobile service businesses and banks to understand the economy of scope in providing services at a low cost while offering optimal social benefits. The research will help financial institutions to gain insight into how to provide finance services via using updated technology in order to manage cross-border operations for low-income consumers in remote areas. In policy terms, the research encourages decision makers and controllers to devise strategies that foster Fintech growth and financial inclusion.

Limitation and Future Scope

Present study is not free from limitations. This study has only taken a sample of respondents from Delhi, and thus the data may not be representative of the entire Indian population. Additionally, only three variables i.e., Government Support, Brand Image and User Innovativeness have been included in the analysis. Some other related variables and their relationship to attitude towards adoption of fintech services may be conducted in the future. Furthermore, additional variables such as the respondent's family background, education level, and type of occupation may also be used for future research. It is important to note that the sample taken

from Delhi is only representative of the Indian population, and that data from other states may be necessary for a more comprehensive understanding and policy formation.

References

- Adeiza, A., Azizi Ismail, N., & Marissa Malek, M. (2017). An empirical examination of the major relationship factors affecting franchisees' overall satisfaction and intention to stay. *Iranian Journal of Management Studies*, 10(1), 31-62.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS quarterly*, vii-xvi.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Gholami, R., Singh, N., Agrawal, P., Espinosa, K., & Bamufleh, D. (2021). Information technology/ systems adoption in the public sector: evidence from the Illinois department of transportation. *Journal of Global Information Management (JGIM)*, 29(4), 172-194.
- Grabner-Kräuter, S., & Faullant, R. (2008). Consumer acceptance of internet banking: the influence of internet trust. *International Journal of bank marketing*, 26(7), 483-504.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Boca Raton, FL: CRC Press.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Kesharwani, A., & Singh Bisht, S. (2012). The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model. *International journal of bank marketing*, 30(4), 303-322.
- Kiwanuka, A. (2015). Acceptance process: The missing link between UTAUT and diffusion of innovation theory. *American Journal of Information Systems*, 3(2), 40-44.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. The Guilford Press.
- Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking

- in Korea: A modified DeLone and McLean's model perspective. *Interacting with computers*, 21(5-6), 385-392.
12. Leicht, T., Chtourou, A., & Youssef, K. B. (2018). Consumer innovativeness and intentioned autonomous car adoption. *The Journal of High Technology Management Research*, 29(1), 1-11.
 13. Marakarkandy, B., Yajnik, N., & Dasgupta, C. (2017). Enabling internet banking adoption: An empirical examination with an augmented technology acceptance model (TAM). *Journal of Enterprise Information Management*, 30(2), 263-294.
 14. Marakarkandy, B., Yajnik, N., & Dasgupta, C. (2017). Enabling internet banking adoption: An empirical examination with an augmented technology acceptance model (TAM). *Journal of Enterprise Information Management*, 30(2), 263-294.
 15. Papavasiliou, S., Reaiche, C., & Ricci, P. (2019). Digital Adoption: The Need for Truly Inclusive e-Government Services. In *Proceedings of the International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government (EEE)* (pp. 43-49). The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (WorldComp).
 16. Park, E., Kim, H., & Ohm, J. Y. (2015). Understanding driver adoption of car navigation systems using the extended technology acceptance model. *Behaviour & Information Technology*, 34(7), 741-751.
 17. Patil, P. P., Dwivedi, Y. K., & Rana, N. P. (2017). Digital payments adoption: an analysis of literature. In *Digital Nations—Smart Cities, Innovation, and Sustainability: 16th IFIP WG 6.11 Conference on E-Business, E-Services, and E-Society, I3E 2017, Delhi, India, November 21–23, 2017, Proceedings 16* (pp. 61-70). Springer International Publishing.
 18. Paulus, M., Jordanow, S., & Millemann, J. A. (2022). Adoption Factors of Digital Services—A Systematic Literature Review. *Service Science*, 14(4), 318-350.
 19. Priem, R. L., & Swink, M. (2012). A demand-side perspective on supply chain management. *Journal of Supply Chain Management*, 48(2), 7-13.
 20. Priem, R. L., Li, S., & Carr, J. C. (2012). Insights and new directions from demand-side approaches to technology innovation, entrepreneurship, and strategic management research. *Journal of management*, 38(1), 346-374.
 21. Rai, K., & Gupta, A. (2021). Financial literacy leads to retirement financial planning: A structural equation modelling approach. *Journal of Commerce & Accounting Research*, 10(4), 9-18.
 22. Rai, K., Gupta, A., & Tyagi, A. (2021). Personality traits leads to investor's financial risk tolerance: A structural equation modelling approach. *Management and Labour Studies*, 46(4), 422-437.
 23. Riyadh, A. N., Bunker, D., & Rabhi, F. (2010). Barriers to e-finance adoption in small and medium Sized enterprises (SMEs) in Bangladesh. Available at SSRN 1726262.
 24. Ruparelia, N., White, L., & Hughes, K. (2010). Drivers of brand trust in internet retailing. *Journal of Product & Brand Management*, 19(4), 250-260.
 25. Ruvio, A., Shoham, A., & Brenčič, M. M. (2008). Consumers' need for uniqueness: short-form scale development and cross-cultural validation. *International Marketing Review*, 25(1), 33-53.
 26. Saleem, Z., & Rashid, K. (2011). Relationship between customer satisfaction and mobile banking adoption in Pakistan. *International Journal of Trade, Economics and Finance*, 2(6), 537.
 27. Sang, S., Lee, J. D., & Lee, J. (2010). E-government adoption in Cambodia: A partial least squares approach. *Transforming Government: People, Process and Policy*, 4(2), 138-157.
 28. Samuel, H., & Lianto, A. S. (2014). Analisisewom, brand image, brand trust dan minatbeliproduk smartphone di Surabaya. *Jurnalmanajemenpemasaran*, 8(2), 7-54.
 29. Shapiro, S. L., Reams, L., & So, K. K. F. (2019). Is it worth the price? The role of perceived financial risk, identification, and perceived value in purchasing pay-per-view broadcasts of combat sports. *Sport Management Review*, 22(2), 235-246.
 30. Siamagka, N. T., Christodoulides, G., Michaelidou, N., & Valvi, A. (2015). Determinants of social media adoption by B2B organizations. *Industrial Marketing Management*, 51, 89-99.
 31. Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual differences*, 42(5), 893-898.
 32. Yee-Loong Chong, A., Ooi, K. B., Lin, B., & Tan, B. I. (2010). Online banking adoption: an empirical analysis. *International Journal of bank marketing*, 28(4), 267-287.
 33. Zavolokina, L., Dolata, M., & Schwabe, G. (2016). The FinTech phenomenon: antecedents of financial innovation perceived by the popular press. *Financial Innovation*, 2(1), 1-16.
 34. Zhang, T., Lu, C., & Kizildag, M. (2018). Banking "on-the-go": examining consumers' adoption of mobile banking services. *International Journal of Quality and Service Sciences*, 10(3), 279-295.