Journal of Entrepreneurship and Management
14 (2) 2025, 11-23
www.publishingindia.com/jem/
https://doi.org/10.21863/jem/2025.14.2.002

Submitted: 24 February, 2025
Revisions: 20 March, 2025
Accepted: 04 April, 2025

Effect of Environmental Factors on the Choice of Transfer Pricing Policies: An Analysis of a Few Indian Multinational Corporations

Rakesh Narain Srivastava*, Charu Singh**

Abstract

The global trade market is unstable and unpredictable due to shifting environmental circumstances. The variables determining transfer pricing policies will change over time and in relation to different geographic locations. A single universally applicable TP does not exist, as host nation governments would be efficient in organising defences. The study includes environmental variables in order to assess the influence and trends of the same in the choice of Transfer Pricing policies employed by MNCs. Eighteen environmental variables were selected for data collection, and respondents rated the significance of each of the factors on a five-point scale. This study reveals the different environmental factors that impact businesses as they work towards generating value and conforming to the tax laws. The finding of this study demonstrates that the key drive for MNCs transfer pricing policies is the fear of violating tax regulations, which often leads to other objectives being overlooked when they clash with this primary objective of tax minimisation and profit maximisation.

Keywords: Transfer Pricing, Environment Factors, International Tax Laws, Regulatory Authorities, Tax Minimisation, Overall Profitability

JEL Classification: F23, H26, K34, H20, F65, K33, K34

Introduction

The global trade market is rather unstable and unpredictable due to the frequently shifting environmental circumstances of marketplaces. Thus, it is rational to anticipate that the variables that truly determine the TP policies will change not only over time but also concerning different geographic locations. A single universally applicable TP simply does not exist. If it did, the host nations' governments would be efficient in organising their defences, and the whole subject of international TP would be a lot less argumentative and worrisome than it is now.

International transfer pricing refers to the practice of assigning a monetary value to products and services that are moved between linked parties or connected businesses situated in several nations. Many environmental considerations limit this process, even though it offers MNCs a variety of options (Leitch & Barrett, 1992; Emmanuel & Mehafdi, 1994). The relative importance of these factors varies, though. This study investigates the comparative significance of the eighteen environmental factors which influence the MNC's transfer pricing policies in three different scenarios that are in India, outside India and in a free market.

Following is the format for the remaining part of the article. An overview of the research design, sample selection, collection of data and analysis processes used in the study follows next, then followed by a review of related literature about the study. The study's findings are then reviewed and presented. The work is concluded with a summary.

Literature Review

Undoubtedly, the environmental framework in which ITP decisions are made influences MNCs' decision-making processes. Environmental variables that limit the

* Professor in Economics, Department of Commerce, S.S.N. College, University of Delhi, India.
Email: rnsrivastava@ss.du.ac.in
** PhD Research Scholar, Department of Commerce, University of Delhi, Delhi School of Economics, India.
Email: charu.singh13@gmail.com

attainment of enterprises' TP objectives include profit and loss scenarios, competition, regulatory requirements and constraints and others (Leitch & Barrett, 1992). The literature has published the results of empirical studies that were conducted on these aspects and how they affect MNCs' TP policies. Early research on these factors focused on their identification; subsequent studies went on to determine the elements' relative relevance.

Shulman (1966) was the foremost to investigate the issue of transfer pricing when a company expands internationally. His work featured a widespread field study of 8 major US-based manufacturing enterprises, which he regarded as necessary given the demands voiced by managers and the overall lack of research on the topic. In 1964, these companies combined overseas sales contributed up to 8% of the overall sales of the US manufacturing sector abroad due to their high revenue and big investments abroad. According to Shulman, the main environmental determinants consist of corporate income tax, import/custom charges & tariffs, currency fluctuations and economic restrictions imposed by host governments (such as those on repatriation of earnings and currency, import quantity and kind, expropriation, etc.); and in international financial situation, a subsidiary's competitive edge, foreign collaboration, global pricing practices, public relations, etc. Shulman's thesis made a valuable contribution to the series of studies, investigations and theories about a novel, little-known, but tremendously important issue—even though an investigation on the relative importance of these aspects was not performed by him.

Green and Duerr (1970) conducted the first TP research that was mostly based on questionnaires. The study recorded the answers of 130 multinational companies about their international TP procedures. Their result demonstrates that organisational and environmental variables, including the preferences of overseas subsidiary managers and administrators, tax & customs considerations, the attitude of the host & home governments, local rivalry and the accessibility to forex, continuously exert pressure on respondents' ITP policies. They found that taxes and customs charges had a big influence on businesses' ITP choices.

Additionally, Burns (1980) investigated how fourteen different factors affected the TP choices made by MNEs with US headquarters. She sent out surveys to 210 businesses, and she got 62 insightful answers. She identified 10 factors that had a major bearing on the respondents' intra-firm pricing decisions by using factor analysis. The three most important criteria influencing a firm's TP choice were determined to be "reasonable profit for foreign affiliates", "competition in the foreign country" and "market conditions in the foreign country", in that order. It was discovered that "floating exchange rates", "management of cash flows" and "other US federal taxes" had little to no effect on the procedure. Most notably, Burns also found that the respondents' selections for TP were unaffected by income tax effects.

Tang (1982) reported the findings of an empirical investigation on the environmental factors influencing UK MNCs' TP choices. A group of 20 factors was examined; the three highest ranked were overall profitability, competitive advantage of subsidiaries and profit assessment of subsidiaries; the three factors that ranked lowest were size of transfers, risk of confiscation and FDI requirements of foreign governments. Tang was also able to use factor analysis to abridge the 20 factors into six vital factor sizes, which are as follows: (1) governmental restrictions and the requirement for cash-flows/funds in overseas subsidiaries; (2) customs-duties, anti-dumping and anti-trust regulation; (3) inflation and exchange instabilities; (4) restrictions on royalties or management fees and the local partners' interest ; (5) relations with host countries and overseas subsidiaries' competitive position; and (6) performance evaluation.

Yunker (1983) examined the connections among US-based MNCs' TP policies, subsidiary autonomy, environmental factors and performance evaluation. She applies several correlation tests to her data, finding a useful response rate of 14.5% (52 out of 358 Fortune 500 companies). She discovered statistically significant linkages between TP policy choices and environmental conditions. Her findings primarily showed that the level of competition, government rules, factor of production costs and overall consumer demand for the company's product are the most significant environmental factors influencing the TP of US-based companies. Additionally, she found that these environmental factors are positively correlated with approximately all performance evaluation measures and market-orientated transfer pricing methods.

Mostafa et al. (1984) investigated the degree to which 20 local and foreign determinants may be used to

predict a company's TP system. Overall profitability was determined to be the primary factor influencing international TP. Divisional autonomy, division performance rating and market share of final goods were found to be further significant elements in his study.

Al-Eryani et al. (1990) investigated how 164 US MNEs' ITP tactics were affected by organisational and external factors. Legal restrictions and business size were found to be the most imperative factors influencing US MNCs' international TP tactics in their questionnaire-based analysis. They also discovered, in agreement with Yunker (1983) and Benvignati (1985) that bigger businesses typically employ market-based TP methods, which permit them to stand with both national and global legal requirements.

The environmental factors that influence international TP choices in worldwide situations were all examined in the research mentioned above. Other research that compared the relative impact of each factor in several country settings has expanded the corpus of research in this area. Arpan (1972) made a comparison between US MNCs' and non-US MNCs' TP systems and practices. His two-pronged data-gathering approach comprised interviews with 16 of the 60 respondents and open-ended surveys were sent to the subsidiaries of 145 companies outside of the US. He conducted interviews with partners from global accounting companies as well. Among other things, he discovered that all MNEs, US or not, appear to consider similar environmental considerations when creating their TP criteria. However, compared to US MNEs, non-US businesses—particularly those in France, England and Italy—give export credits and subsidies more weight. Nevertheless, he did not do more study on the elements' relative importance. He did not do more study on the elements' relative importance.

Kim and Miller (1979) ranked eight criteria according to the respondents' relative relevance to explore the factors affecting the international TP policies of US MNCs operating in 8 developing nations. They discovered that the two main elements influencing TP decisions were profit repatriation limitations and exchange controls in the host nation. Other significant variables include the host country's income tax responsibility, tariffs and customs charges and joint venture restrictions, in that order. One important conclusion of this study is that respondents gave income tax less weight than they did in previous investigations, such as those conducted by Greene and Duerr (1970) and Arpan (1972).

Research on this topic was advanced by Tang and Chan (1979), who delved into the environmental factors that influence the TP policies of US and Japan-based MNCs. They observed that, out of the 20 environmental factors influencing the TP decisions of both groups of multinational enterprises; overall profitability was the most significant, based on an aggregate suitable response rate of 19% (76 US and 50 Japanese enterprises). "Restrictions on repatriation of profits", "competitive position of foreign subsidiaries" and "performance evaluation of subsidiaries" are additional variables that are equally significant to them. Nonetheless, it was demonstrated that both groups of companies regarded "risks of expropriation", "domestic government requirements on direct foreign investments" and international antitrust laws poorly. A statistically substantial degree of agreement was found between the Kendall and Spearman correlation coefficient tests. However, a multiple discriminant analysis revealed that five factors were the main source of the disagreement among the two groups' views. These included the "interests of local partners", "devaluation and revaluation of host country currencies", "international antidumping legislation", "import restrictions imposed by foreign countries" and differences in legislation and income tax rates between countries.

Tang (1981) additionally evaluated the environmental factors impacting ITP policies of MNCs in the UK and Canada. He discovered that, analogous to their counterparts in the US and Japan, the two categories of MNCs regarded overall profitability as the most crucial element considered when making an ITP selection. Canadian MNCs placed the competitive position of their overseas subsidiaries third, whereas UK MNEs regarded their foreign subsidiaries' position as the second most important factor. The views of the two parties about the relative significance of legislation and customs duty rates are substantially distinct. Canadian businesses ranked it second out of twenty, while UK businesses positioned it tenth. The following categories earned inadequate marks: "risk of expropriation in foreign countries", "rates of inflation in foreign countries" and "domestic government limits on direct foreign investments" from both sets of companies in their study.

Johnson and Kirsch (1991) studied the factors that are crucial for US-based MNCs to meet their international TP goals. They examined 576 companies from the Fortune 500 and Business Week Global 1000. The study revealed that US corporations' primary ITP purpose was to minimise corporate taxes, based on 79 acceptable responses. Increasing total business profitability and making things simple or easy to use constitute two other crucial objectives. The corporate target with the lowest ranking was to assess the managers' performance within their subsidiaries. They were astonished to see that performance evaluation was graded low even by companies claiming to employ decentralised TP procedures.

Borkowski (1992) examines the factors that drive US-based MNCs when choosing TP methods. She learnt that the 79 respondents' decisions are impacted by a variety of global factors, including international taxation & tariffs, the financial capability of the parent company, the parent's economic favourability and S.482 regulations, in addition to organisational variables like size, parent-subsidiary conflict, ease/cost criterion and degree of decentralisation.

Tang (1993) conducted surveys with each of the 500 companies included in the Fortune 500 list of the biggest US industrial enterprises from the 1990 edition. A study of 143 responses he obtained, covering 24 industrial groups, revealed that the three most important factors considered by his respondents were overall profitability, inter-country variances in taxation of income and laws and regulations and limitations on the repatriation of earnings and dividends by foreign countries, according to that order. The three least important environmental factors, on the other hand, were US government restrictions on FDI, the possibility of foreign countries acquiring your assets and overseas inflation rates. When Tang compared these outcomes with his research from 1979, he found that there were not many variations in the top three variables and the last three variables' positions. He recommended that future investigations be planned and carried out to ascertain whether corporations under foreign ownership are utilising ITP strategies to bypass or avoid paying taxes.

Among other things, Borkowski (1997a) studied the environmental factors influencing US and Japanese multinational enterprises' ITP decisions. In the ranking of several parameters, such as financial recording and disclosures, worldwide concern about TP methods, the number of ITP audits conducted by tax authorities and economic stability, she discovered statistically noteworthy variation. She connected some of these discrepancies to variations in the TPMs that the multinational enterprises employed.

Borkowski (1997b) carried out an additional study to compare the environmental factors that affect the international TP decisions made by MNCs in the US and Canada. Her research revealed modest differences in the weights given to the other criteria by the two groups of MNCs, with the single statistically significant factor being previous tax authority audits across both the nation and TPM.

The literature review cited above throws a little insight into how much weight ITP decision-makers in several national jurisdictions give to different environmental factors. The contrast between the elements that are prioritised by locally controlled and foreign-controlled firms is even more valuable for academics, practitioners and regulatory authorities involved in ITP. The literature has extensively proposed a connection between MNCs' ITP procedures and reported performances (Grubert & Mutti in 1991; Cravens & Shearon in 1996; Jacob in 1996, etc.).

MNCs' performance and post-performance dispersion differ dramatically depending on whether they are under foreign or local ownership, corresponding to current empirical research and deviations in TP practices have often been recommended as the utmost possible cause of this divergence (these demonstrate the same, Wheeler in 1988; 1990; Kim & Lyn in 1990; Crain & Stitts in 1994; Munday & Peel in 1997; Oyelere & Emmanuel in 1998). Although the best way to balance the many impacts of environmental factors continues to be the benchmark for ITP decisions, no empirical research has examined potential variations in the importance of these factors across three different subgroups/regions: India, outside India and the open market. The current study, which searches for differences between these three regional groupings regarding this crucial component of international transfer pricing procedures, is justified by a gap in the literature. Below is an explanation of the research approach applied in this study.

Research Methodology

The primary objective of this research is to determine the relevance of environmental factors concerning the TPM that multinational corporations choose. The following is a description of the study's methodology's main points, which include the statement of research sample gathering and characteristics, data collecting and analysis.

Environmental factors were included in this study to assess their impact and any trends in the TPMs those MNCs select to deploy. Consequently, when creating a data-collecting instrument, eighteen environmental factors were chosen to learn the reality in practice. Respondent MNCs rated the significance of each of these potential factors of TP methods used for subsidiaries in India, outside of India and by unrelated enterprises in the open market on a 5-point scale. The sampled MNCs' relative relevance for each of these factors is displayed in Table 1.

In this study, ranks are used for identifying the significance of each of the environmental variables by the respondent MNCs, which are based on the mean scores of the respected variables. The degree of agreement between respondents' MNC ratings of different factors is used by calculating the standard deviation data.

The Kruskal-Wallis H test ("one-way ANOVA on ranks") was used to determine if there are possible statistically significant differences in the ranking of the environmental variables.

A Cronbach analysis based on an orthogonally rotated R-type principal components factor analysis (Varimax procedure) was carried out to address the possible issue of multicollinearity, identify a comparatively small number of fundamental factors and ensure internal consistency. Since factor analysis is concerned with the relationships between data, its input matrix is often a matrix of correlations. The correlation matrix for the environmental factors has been carried out for this study.

Data Collection

Environmental factors were incorporated in this study to evaluate their influence and any pattern in the TPMs those MNCs chose to employ. As a result, when creating an instrument for data collection, 18 environmental factors were chosen to uncover the realities in practice. Respondent MNCs rated the significance of each one of these plausible factors of TP methods used by subsidiaries in India, outside of India and by unaffiliated independent companies in the open-market scenario on a 5-point scale. The sampled MNCs' comparative weights for each of these variables are tabulated later.

The methodological structure, study design and the researchers' ability to identify participants all influence the choice of convenience sampling (Koerber & McMichael, 2008). The researcher initially establishes criteria for admission before getting in touch with any current target audience that satisfies the parameters. Participants are invited to participate in the study by the researcher, and after they accept, they are chosen and included in the sample. Convenience sampling was used for this study because of the researcher's years of experience in the transfer pricing field. The access and experience of the participants were helpful while collecting data. By establishing a target population and a sampling frame beforehand and then doing everything possible to align both sets as closely as possible, the researcher was able to prevent or rectify sample-bias. The MNCs that answered are from a wide range of industries, such as manufacturing and distribution, and offer a variety of services. Additionally, the researcher used online surveys instead of paper questionnaires to make it as accessible as possible. Follow-up was also done with non-respondents to verify the favourable response.

The variables' average scores were utilised to arrive at the ranks following the importance being given to the variable. A 5-point scale was used to determine the mean for each variable, with 5 representing extremely important, 4 representing very important, 3 representing important, 2 representing slightly important and 1 representing not important. The larger the number, the more significant that variable is to the multinational corporation.

Among the selected MNCs in India, the researcher received 45 questionnaires over the mail. Depending on the situation, the respondents who completed the questionnaires managed intra-firm transactions with parent firms, subsidiaries and/or related partners as well as transfer price planning for their businesses. Out of the 37 questionnaires so distributed, 15 were returned fully

completed, 13 had certain shortages and 9 companies were unable to respond. Therefore, 15 completed questionnaires were received, constituting 40 per cent of the response rate. The completed questionnaires were all filled out electronically using Google Forms. Since it is impossible to draw a reliable conclusion from incomplete replies, questionnaires that were only partially completed were eliminated. The 15 MNCs were assigned alphabetical codes ranging from A to O that are used for the analysis.

Company Profile

Panel B of Table 1 represents the respondent designation within the organisation, the number of subsidiaries the organisation has and the estimated number of products and services the overall organisation offers in the open market. Panel C of the Table represents the approximate number of subsidiaries the group has under one parent company. Panel D of Table 1 below illustrates the total number of MNCs' tangible products, services, financing and intangibles, if any.

Table 1: Profile of the MNCs

A	*B*	*C*	*D*
Company	*Respondents Post in the Organization*	*No. of Subsidiaries*	*Turnover (Approx) in Past Year (Crores)*
A	Senior Partner & Business Leader - Transfer Pricing	110	5000
B	Senior Manager Finance	56	2300
C	Associate Director – Global Transfer Pricing	200	9000
D	Financial Manager	7	318
E	Financial Officer	3	50
F	Director and Head: international tax and transfer pricing	6	45
G	Deputy Director Finance	3	10
H	Director Finance	75	1000
I	Senior Manager Finance	17	600
J	Senior Financial controller	16	630
K	Financial Manager	3	10
L	Financial Manager	4	10
M	Senior Financial Manager	10	90
N	Financial Manager	7	280
O	Financial Manager	4	11

Data Analysis

The data gathered through the questionnaire survey was statistically analysed, and the results are presented in this chapter. The results were determined based on replies from 15 firms who filled out full surveys. The findings of the surveys are given in the following paragraphs.

The data shows that the responding MNCs regarded adherence to tax laws and regulations as a highly significant factor affecting transfer pricing choices for their subsidiaries located in the Indian area. The low standard deviation for this variable indicates that respondents' opinions about the significance of tax laws and legal issues were generally agreed upon.

India

Variables that were considered very significant by the respondents comprised 'compliance with tax rules & regulations', 'overall profit of the organisation', 'maintenance of cash flows', 'tax audits on Transfer

Pricing' and 'difference in corporate tax rates' and 'goal congruence of the group'. Variables that were discreetly significant by the respondent MNCs covered, 'competitive Advantage of the subsidiary', 'overall earnings of the subsidiary', 'performance evaluation of division', 'restrictions on income repatriation', 'cordial relationships with the host government', 'managerial Incentives' and 'political and social pressure of host country'. Variables that were considered only somewhat significant included 'foreign exchange control', 'Import restrictions', 'Existence of local suppliers' and 'Control on prices by the host government'.

Outside India

With regards to unrelated businesses that transact outside India, 'compliance with tax laws and regulations', 'maintenance of cash flows', 'tax authority Transfer Pricing audit', 'restrictions on income repatriation' and 'cordial relationships with the host government' was considered most important. 'Overall profit of the organisation', 'competitive advantage of the subsidiary', 'difference in corporate tax rates', 'performance evaluation of division', 'foreign exchange control', 'import restrictions', 'overall earnings of the subsidiary', 'political and social pressure of host country', 'control on prices by host government', 'managerial incentives' and 'goal congruence of the group' were measured very significant. Somewhat significant variables were the 'existence of local suppliers', and other factors.

Open Market

'Compliance with tax laws and regulations', 'maintenance of cash flows', 'competitive advantage of the subsidiary' and 'goal congruence of the group' was considered quite significant in the TP choices when dealing in the open market'. 'Overall earnings of the subsidiary', 'overall profit of the organisation', 'tax authority Transfer Pricing audit', 'difference in corporate tax rates', 'performance evaluation of division', 'restrictions on income repatriation', 'import restrictions' and 'existence of local suppliers' were all considered significant.

Based on the mean scores of the respected factors, as indicated by Table 2, the respondent MNCs ranked the relevance of each environmental variable, as seen in Fig. 1 below. The degree of agreement between respondents' MNC ratings of different factors is shown by the standard deviation data.

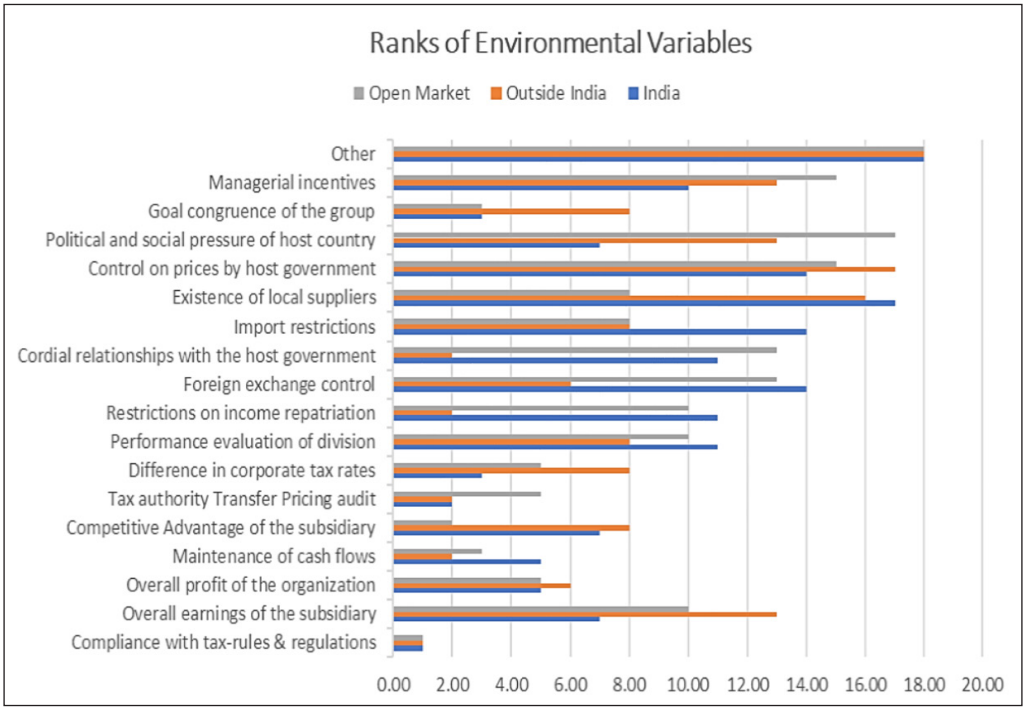

Fig. 1: Environmental Variables Ranked Per Their Significance by Respondent MNCs

Table 2: Comparison of Ranks Per Significance of Environmental Variables

Regional Area	*India*			*Outside India*			*Open Market*		
Environmental Factors	*Mean*	*SD*	*Rank*	*Mean*	*SD*	*Rank*	*Mean*	*SD*	*Rank*
Compliance with tax-rules & regulations	4.27	0.96	1	3.80	1.01	1	3.87	0.99	1
Overall earnings of the subsidiary	3.60	0.91	7	3.47	0.74	13	3.40	0.83	10
Overall profit of the organization	3.67	0.90	5	3.60	0.74	6	3.53	0.83	5
Maintenance of cash flows	3.67	0.72	5	3.67	0.82	2	3.60	0.83	3
Competitive Advantage of the subsidiary	3.60	0.83	7	3.53	0.74	8	3.67	0.90	2
Tax authority Transfer Pricing audit	4.20	0.86	2	3.67	0.90	2	3.53	0.74	5
Difference in corporate tax rates	3.73	0.88	3	3.53	0.74	8	3.53	0.92	5
Performance evaluation of division	3.40	0.74	11	3.53	0.64	8	3.40	0.83	10
Restrictions on income repatriation	3.40	0.83	11	3.67	0.82	2	3.40	0.74	10
Foreign exchange control	3.33	0.82	14	3.60	0.83	6	3.33	0.82	13
Cordial relationships with the host government	3.40	0.91	11	3.67	0.72	2	3.33	0.82	13
Import restrictions	3.33	0.90	14	3.53	0.64	8	3.47	0.92	8
Existence of local suppliers	3.27	0.80	17	3.40	0.63	16	3.47	0.74	8
Control on prices by host government	3.33	0.90	14	3.33	1.05	17	3.27	1.03	15
Political and social pressure of host country	3.60	1.06	7	3.47	0.92	13	3.20	0.94	17
Goal congruence of the group	3.73	0.70	3	3.53	0.64	8	3.60	0.91	3
Managerial incentives	3.47	0.83	10	3.47	0.74	13	3.27	0.80	15
Other:	2.53	1.25	18	2.67	1.11	18	2.60	1.18	18

The rankings in Table 2 indicate that 'compliance with tax rules and regulations' is the most significant variable influencing TP policies throughout all three scenarios. The remaining variables only to some extent varied in their level of significance based on the nature of the transfer pricing policies. For instance, 'Tax authority Transfer Pricing audit' was considered a very significant variable by both the Indian region and in global scenarios, while it was considered extremely significant for affiliates in the open market. Moreover, the Kruskal-Wallis H test might be applied to see if there are any differences in the rankings of each pair of environmental variables.

To ascertain if the ranking of the environmental factors may differ statistically significantly, the Kruskal-Wallis H test, also known as a "one-way ANOVA on ranks", was employed. In Table 3, the test results are displayed.

Table 3: Results of Kruskal-Wallis H

Ranks			
	Groups	*N*	*Mean Rank*
Score	India	18	29.06
	Outside India	18	31.14
	Open Market	18	22.31
	Total	54	
Test Statistics			
	Score		
Kruskal-Wallis H	3.14		
df	2		
Asymp. Sig.	0.208		

This can be concluded that there are no statistically significant changes in the ordering of these variables across the three scenarios based on the value of $p = 0.208 > .05 = \alpha$. Hence it can be concluded that MNCs rank environmental measures in the same manner and place equal value on all variables when it comes to Transfer Pricing whether in India, outside India or even in the open market scenario.

Factor Analysis

Using these data, an orthogonally rotated R-type principal components factor analysis was used as the basis for a Cronbach analysis (Varimax procedure). The study was conducted in order to maintain internal consistency, solve the potential problem of multicollinearity and pinpoint a relatively limited number of core dimensions or behavioural features. A matrix of correlations is frequently used as the input matrix for component analysis as it is interested in the connections between data.

Variables that are relatively highly correlated include: 'Overall profit of the organisation' with 'Competitive Advantage of the subsidiary', 'Tax authority Transfer Pricing audit', 'Performance evaluation of division', 'Foreign exchange control', 'Cordial relationships with the host government', 'Import restrictions', 'Existence of local suppliers', 'Goal congruence of the group'. The overall earnings of the subsidiary with compliance with tax-rules & regulations 'Tax authority Transfer Pricing audit', 'Difference in corporate tax rates' with 'Cordial relationships with the host government' and 'Import restrictions'. 'Restrictions on income repatriation' with 'Foreign exchange control', 'Cordial relationships with the host government', 'Import restrictions' and 'Control on prices by host government'.

The fundamental basis for conducting a factor analysis was established by the high correlation among these environmental variables.

The findings of the factor analysis are displayed in Table 4 below. Factor analysis is a useful tool for analysing many variables when certain "underlying" factors impact some variables that, although we cannot directly view, we may measure (i.e., they are not directly observable). Our objective is the same in both scenarios: to distil a vast array of variables down to a manageable amount of "factors". The communalities column displays the amount to which each variable is explained or accounted for by the factors. Each component's eigenvalue, which is the sum of squares of its un-rotated loadings, is typically used to calculate the percentage of the variable's overall variation that the factor accounts for (Camiz, Gomes & Senna 2015: pg.117). The eigenvalue of each factor divided by 18 (the total number of variables) is the percentage representation of the overall variance for each factor.

Table 4: Factor-Analysis of the Variables and Communalities

Variable	*Factor1*	*Factor2*	*Factor3*	*Factor4*	*Communality*
Compliance with tax-rules & regulations	0.144	0.162	-0.095	0.862*	0.798
Overall earnings of the subsidiary	0.464	0.149	-0.007	0.800*	0.879
Overall profit of the organization	0.731*	0.408	0.036	0.497	0.949
Maintenance of cash flows	0.438	0.474	0.414	0.252	0.651
Competitive Advantage of the subsidiary	0.364	0.753*	0.303	0.300	0.882
Tax authority Transfer Pricing audit	0.287	0.547	0.154	0.694*	0.887
Difference in corporate tax rates	0.743*	0.471	-0.060	-0.042	0.780
Performance evaluation of division	0.717*	0.376	0.206	0.057	0.701
Restrictions on income repatriation	0.855*	-0.045	0.295	0.147	0.843
Foreign exchange control	0.755*	0.093	0.533	0.272	0.937
Cordial relationships with the host government	0.747*	0.254	0.499	0.101	0.881
Import restrictions	0.753*	0.335	0.489	0.114	0.932
Existence of local suppliers	0.083	0.681*	0.612	0.283	0.925

Variable	Factor1	Factor2	Factor3	Factor4	Communality
Control on prices by host government	0.345	0.221	0.862*	-0.209	0.955
Political and social pressure of host country	0.220	0.094	0.907*	-0.241	0.939
Goal congruence of the group	0.221	0.936*	0.085	-0.036	0.933
Managerial incentives	0.570	0.478	0.480	-0.349	0.905
Other	0.177	0.149	0.174	-0.796	0.718
Variance	9.558	3.347	1.457	1.134	15.495
% Variance	53.1%	18.6%	8.1%	6.3%	86.1%

Cronbach's coefficient alphas for reliability were evaluated for each factor to determine the degree to which the component variables of each factor had a common basis and the degree to which the items of the questionnaire were related to each other. The basis for Cronbach's alpha is the average inter-item correlation. Cronbach's alpha is computed using the average inter-item correlation values. The reliability held for each item, including the four components, is displayed in Table 5 below. High-reliability items were found in Factor 1, explaining 53% of variance and the remaining three factors were deemed satisfactory, explaining the rest, approx. 30%.

According to the adjusted total means, the environmental factors that dominated Factor 1 were as follows: overall profit of the organisation; difference in corporate tax rates; performance evaluation of division; restrictions on income repatriation; foreign exchange control; cordial relationships with the host government; import restrictions. Factor 2 it was the competitive advantage of the subsidiary and the existence of local suppliers. Factor 3 it was compliance with tax rules & regulations and overall earnings of the subsidiary and tax authority Transfer Pricing audit.

This indicates that the respondents who gave top priority to factors like overall profit of the organisation; difference in corporate tax rates; performance evaluation of division; restrictions on income repatriation; foreign exchange control; cordial relationships with the host government; import restrictions also tended to give importance to other variables that loaded highly on Factor 1 as important. As a result, the factor analysis demonstrates how MNCs apply TP policies differently in various scenarios. Such joint fluctuations in response to latent factors that are not observed are sought by factor analysis.

Table 5 below displays the findings of the Cronbach's alpha reliability test that was performed on the environmental factors.

Table 5: Cronbach's Alpha Reliability Analysis

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.961	0.97	18

Cronbach's Alpha = 0.961	Mean	Std. Deviation	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Compliance with tax-rules & regulations	11.93	2.712	176.2	905.743	0.4	0.965
Overall earnings of the subsidiary	10.47	2.167	177.67	883.952	0.697	0.96
Overall profit of the organization	10.8	1.935	177.33	875.667	0.865	0.958
Maintenance of cash flows	10.93	2.086	177.2	871.171	0.835	0.958
Competitive Advantage of the subsidiary	10.8	2.21	177.33	862.238	0.857	0.957
Tax authority Transfer Pricing audit	11.4	1.993	176.73	884.352	0.76	0.959
Difference in corporate tax rates	10.8	2.178	177.33	873.095	0.781	0.959
Performance evaluation of division	10.33	1.718	177.8	883.6	0.899	0.958

Cronbach's Alpha = 0.961	*Mean*	*Std. Deviation*	*Scale Mean if Item Deleted*	*Scale Variance if Item Deleted*	*Corrected Item-Total Correlation*	*Cronbach's Alpha if Item Deleted*
Restrictions on income repatriation	10.47	1.959	177.67	877.381	0.837	0.958
Foreign exchange control	10.27	1.87	177.87	872.695	0.925	0.957
Cordial relationships with the host government	10.4	2.028	177.73	864.781	0.918	0.957
Import restrictions	10.33	1.988	177.8	862.743	0.957	0.956
Existence of local suppliers	10.13	1.807	178	880.857	0.879	0.958
Control on prices by host government	9.93	2.712	178.2	848.6	0.775	0.959
Political and social pressure of host country	10.27	2.658	177.87	865.695	0.675	0.961
Goal congruence of the group	10.87	1.922	177.27	885.21	0.782	0.959
Managerial incentives	10.2	2.178	177.93	863.21	0.863	0.957
Other	7.8	3.448	180.33	883.667	0.404	0.968

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

For individual variables, a result of 0.961 was attained, which is considered excellent. Therefore, the variables were further examined using standardised items and scenario analysis. This produced a result of 0.97, which is a high score for assessing the degree of consistency and dependability, as seen in Table 5 above.

This conclusion, which is in line with those in Tang (1979; 1981), implies that multinational corporations maintain a worldwide perspective on the variables impacting their transfer pricing decisions regardless of their control location. Regarding their transfer pricing choices, they are highly consistent in their assessment of the risks and possibilities present in the broader business environment, notwithstanding country variations. These might be explained in part by the excellent information and counsel that these big businesses' management has access to. Most of them are probably following comparably reliable sources for information and assistance on transfer pricing-related issues.

Conclusions

The study reveals that there is no one set of suitable transfer pricing policies for every organisation, as various environmental factors influence businesses' efforts to generate value and comply with tax laws. Multinational corporations' transfer pricing policies are driven by fear of tax regulations, often causing other objectives to be overlooked when they conflict with their primary goal of tax minimisation and profit maximisation.

The environmental factors influencing the formation of transfer pricing policies in India, outside of India and in an open market were compared in this empirical study. The results of the tests indicated that the responding firms were mostly in agreement with the order of significance of the eighteen environmental elements that affected their transfer pricing decisions. Multinational corporations were found to agree on the ranking of requirements eliciting tax compliance issues only in three different scenarios when the elements were stratified into three different groups. Their ranking of the elements in terms of internal operations and economics did not agree. Furthermore, statistically significant differences were found in their ranking of five individual environmental factors, namely compliance with tax rules and regulations, overall profit of the organisation, difference in corporate tax rates, performance evaluation of a division and restrictions on income repatriation. MNCs operating in

India placed a greater degree of emphasis on economic and regulation-related factors. Whereas MNCs operating outside India placed emphasis not only on economic- and regulation-related factors but also, rather surprisingly, on subsidiaries-related objectives. MNCs in the open-market scenario: more emphasis is placed on economic & regulation-related factors as well as equal importance given to the income-shifting factors.

Although compliance-related issues were ranked as the most significant influencing factors on their transfer pricing policies across all scenarios, it was discovered that their location of control clearly affected how much weight they gave too many of the elements in this study. This conclusion should be very significant for national and worldwide administrators of transfer pricing practices, including appropriate tax authorities, as well as managers and designers of international transfer pricing systems.

As is frequently the case with research of this kind, it is necessary to draw attention to some potential limitations. First, the study analyses the TP practices of businesses operating in India. The actions and procedures of foreign-controlled companies with subsidiaries may be substantially restricted by the choices made by their parents as well as by accounting and other laws and regulations in their home nations. This might restrict the degree of analysis that can be done on the data that was gathered. These companies must, however, adhere to Indian regulatory standards regarding the topic since they conduct business in India. Furthermore, comparing parents with parents or divisions with divisions in a study of this kind is likely to be complicated by other nationality-specific factors, including language, culture and behavioural inclinations, in addition to differences in disclosure procedures.

Second, there remains a chance that non-respondents may be reluctant to share information that could have a negative return value because the analysis focused on just a handful of fifteen MNCs and because questionnaire-based research into the extremely sensitive topic of transfer pricing is always possible. Therefore, information held by non-respondents might significantly change the study's conclusions. If such a situation exists, it is beyond the researcher's control. The non-response bias assessments adverse findings, which were conducted and reported in this study, offer some protection against this potential drawback.

Recent developments in this field demonstrate that transfer pricing is such a wide-ranging subject that questionnaire-based research is incapable of fully capturing all its facets. As a result, future researchers could consider other methodological strategies. A helpful follow-up to this kind of research may be a case-based analysis of the international transfer pricing operations of the three sub-groups depending on national jurisdiction listed above. Applying the existing study approach to subgroups of the business nature type categorisation, such as manufacturing firms, distribution companies and service providers, is another potential option for future development. Lastly, to uncover any nationalistic biases in the weight that multinational corporations (MNCs) give to environmental considerations when developing international trade policy, future studies ought to consider further segmenting their samples based on nationality of ownership.

References

Al-Eryani, M. F., Alam, P., & Akhter, S. (1990) Transfer pricing determinants of US multinationals. *Journal of International Business Studies,* 409-425.

Anderson, D. R., Sweeney, D. J., & Williams, T. A. (1986) *Statistics: Concept and applications*. St. Paul: West Publishing Co.

Arpan, J. (1972) *International intracorporate pricing: Non-American systems and views.* New York: Praeger.

Benvignati, A. (1985). An empirical investigation of international transfer pricing by U. S. manufacturing firms. In A. Rugman, & L. Eden (Ed.), *Multinationals and Transfer Pricing* (pp. 193-211). New York: St. Martin's Press.

Borkowski, S. C. (1992). Organisational and international factors affecting multinational transfer. In K. S. Most (Ed.), *Advances in International Accounting* (vol. 5, pp. 173-192). Greenwich, CT: JAI Press.

Borkowski, S. C. (1997a). Factors motivating transfer pricing choices of Japanese and United States transnational corporations, *Journal of International Accounting, Auditing & Taxation, 6*(1), 25-47.

Borkowski, S. C. (1997b). Factors affecting transfer pricing and income shifting (?) between Canadian and

US transnational corporations, *International Journal of Accounting, 32*(4), 391-415.

Burns, J. (1980). Transfer pricing in U. S. multinational corporations. *Journal of International Business Studies*, *11*(2), 23-39.

Collier, P. A. & R. S. O. Wallace (1992). Mail accounting survey response patterns: An example of the total design method. *Accounting Education, 1*(4), 277-291.

Crain, T. L., & Stitts, R. H. (1994). A comparison of gross profit margins between foreign-controlled domestic corporations and comparable US-controlled domestic corporations. *Journal of International Accounting, Auditing and Taxation*, *3*(1), 85-101.

Cravens, K. S., & Shearon, W. T. Jr. (1996). An outcome-based assessment of international transfer pricing policy. *The International Journal of Accounting, 31*(4), 419-443.

Emmanuel, C. R., & Mehafdi, M. (1994). *Transfer pricing*. London: Academic Press Ltd.

Greene, J., & Duerr, M. G. (1970) *Intercompany transactions in the multinational firm*. New York: The Conference Board.

Grubert, H., & Mutti, J. (1991). Taxes, tariffs and transfer pricing in multinational corporate decision-making. *Review of Economics and Statistics,* 285-293.

Jacob, J. (1996). Taxes and transfer pricing: Income shifting and the volume of intrafirm transfers. *Journal of Accounting Research, 34*(2), 301-312.

Johnson, W. A., & Kirsch, R. J. (1991). International transfer pricing and decision making in United States multinationals. *International Journal of Management, 8*(2), 554-561.

Kim, S. H., & Miller, S. W. (1979). Constituents of the international transfer pricing decision. *Columbia Journal of World Business*, 69-77.

Kim, W. S., & Lyn, E. O. (1990). FDI theories and the performance of foreign multinationals operating in the US. *Journal of International Business Studies,* 41-54.

Kinnear, P. R., & Gray, C. D. (1997). *SPSS for windows made simple* (2nd ed.). Hove, East Sussex: Psychology Press.

Leitch, R. A., & Barrett, K. S. (1992). Multinational transfer pricing: Objectives and constraints. *Journal of Accounting* Literature*, 11,* 47-92.

Mostafa, A., Sharp, J. A., & Howard, K. (1984). Transfer pricing: A survey using discriminant analysis. *Omega, 12*(5), 465-474.

Munday, M., & Peel, M. J. (1997). The Japanese manufacturing sector in the UK: A performance appraisal. *Accounting and Business Research*, *28*(1), 19-39.

Oyelere P. B., & Emmanuel, C. R. (1998). International transfer pricing and income shifting: Evidence from the UK. *European Accounting Review, 7*(4), 623-635.

Shulman, J. S. (1966). *Transfer pricing in multinational business* (Unpublished DBA thesis, Harvard University).

Siegel, S., & Castellan, N. J. Jr. (1988). *Nonparametric statistics* (2nd ed.). New York:McGraw-Hill Inc.

Tang, R. Y. W. (1979). *Transfer pricing practices in the USA and Japan*. New York: Praeger. Tang, R. Y. W. (1981). *Multinational transfer pricing: Canadian and British perspectives*. Toronto: Butterworths and Co. Ltd.

Tang, R. Y. W. (1982). Environmental variables of multinational transfer pricing. *Journal of Business Finance and Accounting, 9*(2), 179-189.

Tang, R. Y. W. (1993). *Transfer pricing in the 1990's: Tax and management perspectives.*Westport: Quorum Books.

Tang, R. Y. W., & Chan, K. H. (1979). Environmental variables of international transfer pricing: A Japan-United States comparison. *Abacus, 5,* 3-12.

Wallace, R. S. O., & Mellor, C. J. (1988). Nonresponse bias in mail accounting surveys: Apedagogical note. *The British Accounting Review, 20,* 131-139.

Wheeler, J. E. (1988). An academic look at transfer pricing in a global economy. *Tax Notes, 4,* 87-96.

Wheeler, J. E. (1990). *Hearings on tax underpayments by foreign-owned US subsidiaries* (1-15). House Ways and Means Oversight Sub-Committee of the United States House of Representatives.

Yunkers, P. J. (1983). A survey study of subsidiary autonomy, performance evaluation and transfer pricing in multinational corporations. *Columbia Journal of World Business*, *Fall, 19,* 51-64.