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Assessing dimension of the business relationship: integrating symmetric and asymmetric approaches

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Assessing Dimension of the Business Relationship: Integrating Symmetric and Asymmetric Approaches

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Abstract – **The principal intent of the study was to explore the measurement of the B2B Relationship through integrating symmetric and asymmetric analysis. This study applied a mixed-method research approach and used 320 sample responses to validate the research model. Finally, this study explored six measures: trust, commitment, cooperation, power, communication, and satisfaction to build B2B relationships through symmetric analysis. Finally, fsQCA analysis provides a unique configuration with maximum consistency and coverage, which is a configuration with four dimensions, like Cooperation, Power, Communication, and Satisfaction. Finally, this study integrated two outcomes based on symmetric and asymmetric analysis and refined the research model as cooperation, power, communication, and satisfaction as core and sufficient conditions for the B2B relationship. This study contributes to the existing theory of relationship marketing and managerial insight.**
Keywords – **B2B Relationship; Linear and nonlinear analysis; Mixed method; fsQCA; PLS-SEM**

I.INTRODUCTION

Business relationships are a new and complex dimension of 'marketing' and it's maintained within the relationship marketing framework. Organizations aim to develop long-term, sustainable relationships with their stakeholders to increase profitability and reduce vulnerability [1]. In the twenty-first century, increased competitiveness and strategic diversity have posed challenges for organizations to maintain and satisfy customers using traditional methods. Business relationships now emphasize engagement and relationship building to identify and meet customer needs at a profit. For example, relationship marketing may help to build a sustainable competitive advantage [2], [3].

Further, an earlier study addressed how enterprises emerge to manage the sustainable competitive advantage formed during the continuing channel relationships [4]. In terms of business-to-business (B2B) relationships, authors contextualize marketing channel relationships (MCR) as a form of B2B relationship. MCR refers to the connections between various members of a marketing channel, including suppliers (farmers), middlemen, and retailers. The scope of business relationships is wider; this study focused on the Agri-marketing channel in Bangladesh. In this manuscript, the author conceptualizes business-to-business (B2B) relationships as "the process of developing emergent cooperative and shared relationships with business customers and other market actors" [5].

While business-level relationships have a complex and extensive influence, no universally accepted framework that establishes standardized building blocks for these relationships has been published to date. To evaluate these facts, the author conducted an extensive literature review of articles published between 1990 and June 2025 in indexed journals and used popular search engines like "Google Scholar, JSTOR, Scopus," among others. After completing the literature review, the author did not find any research specifically focused on business relationship measures or their dimensions. However, this manuscript compiles several key studies that have enriched relationship marketing literature in recent decades, such as [2], [6], and [7].

A review of relationship marketing literature has found that the main variables predicting relationships have mostly been validated conceptually rather than empirically, except [2]. However, their study validated the model using linear analysis without considering dynamic or non-linear methods, considering the limits of the linear model. In the theoretical review, key frameworks like the commitment–trust theory and social exchange theory are referenced to define the dimensions for measuring relationships. Despite the fragmented nature of relationship marketing literature, existing work offers both theoretical and methodological contributions that could lead to meaningful advances in marketing, specially [2], [7].

Given the current gaps in theory and method, this manuscript addresses the main research question (RQ): What are the measuring dimensions of B2B relationships? To answer this, the study establishes specific research objectives (ROs): (a) to identify and explore the key dimensions of B2B relationships, (b) to empirically validate the proposed B2B relationship model, and (c) to determine which configuration leads to building the B2B Relationship.

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II. METHODOLOGY

For exploring dimensions, this study follows the research process recommended by [8] and [9]. This study applies the mixed-method concepts as suggested by [10] for dimension exploration. In addition, the mixed-method research approach comprises at least one qualitative method (to gather words) and one quantitative method (to collect numbers) [11]. According to previous studies, the B2B Relationship and its indicators have attributes that support the author in conceptualizing it as a reflective construct.

Qualitative study: This study collected field study data from the agricultural sector, particularly in the dairy industry in Bangladesh. In a qualitative study, we selected 22 samples through a judgment sampling technique. This technique is appropriate for collecting information during the exploratory research project [12] and involving experienced participants in the relevant field [13]. A detailed semi-structured interview was conducted with dairy managers, policy makers, and stakeholders; each interview lasted for 20–30 min (approximately). All respondents' responses were coded (prior coding, open coding, and indigenous coding) and analyzed to explore the relevant dimensions and items. To analyze the qualitative data and establish a link relationship among the concepts of studies, interview responses, and theoretical context, this study applied content analysis through NVivo 14.

The qualitative study was conducted in two phases: inductive and deductive assessment to meet the exploratory study intent.

Quantitative study: In the quantitative analysis, this manuscript employed two approaches: i) Symmetric Approach, ii) Asymmetric Approach

Symmetric Approach: The PLS based SEM analysis is applied as a symmetric analysis tool. This study follows the entire measurement scale development process as per the guidelines of [8] and applied by [9]. For this study, the author created items through an extensive literature review. Finally, the author prepared a primary questionnaire, including all dimensions (SAT, COMT, POW, SAT, COMU, and COOP) and their items. All items were assessed using the Likert scale (5-point scale: strongly disagree: 01'; strongly agree: 05'). A face-to-face questionnaire-based survey was conducted in Bangladesh, particularly in Sirajgonj and Chittagong districts. Finally, a total of 420 participants were chosen from the survey areas as prospective respondents. In the end, 320 (76% of total samples) responses were used to validate the proposed research model, and this sample size was sufficient for PLS-based SEM analysis, according to [14]. As a symmetrical analysis tool, this study employed the Partial Least Squares-Based Data Analysis, particularly PLS-SEM under the support of SmartPLS-4 Software as a reference to [15] and [16] for the first-order and second-order reflective constructs, and it was validated. Therefore, this study used PLS-based SEM analysis based on [17] to validate that the proposed model was rational and empirically logical.

Asymmetric Approach: Considering limits regarding SEM application [14], the author planned to verify the symmetrical analysis outcomes with an asymmetrical analysis, which is another novelty of this research. As an asymmetrical analysis tool, this study used a complex dynamic model, Fuzzy-Set Qualitative Comparative Analysis (fsQCA), which is an asymmetric analytical method that explores the relationship between conditions and outcomes in a configurational way [18]. In this study, the author strictly followed the fsQCA analysis guidelines proposed [18]. Their study motivated the integration of fsQCA with PLS-SEM. For data calibration, this study used the latent variable scores from SEM-PLS as raw data for fsQCA. To simplify the truth table, the consistency cut-off was set at 80% or higher [19], and PRI (Proportional Reduction in Inconsistency) was set above 60%. The frequency threshold was set at 2, considering the small sample size [18]. To assess necessary and sufficient conditions, this study applied thresholds [20].

Operationalization of Approaches

To make the model operational, all dimensions (first order) and second-order construct B2B Relationships were reflective measurement constructs. These constructs were examined by appraising the item reliability, internal consistency, average variance extracted (AVE), and discriminant validity as per the references [15]-[17], [22]. The structural model was evaluated by analyzing the t-values of the path coefficients to validate the proposed research hypotheses. Finally, the second-order construct of B2B Relationship was measured by using a two-stage approach. For fsQCA, this study conducts NCA, truth table, and sufficiency tests to find the best configuration as mentioned the references [18], [20].

III. RESULTS

A. Qualitative Study (Study -1)

The outcomes of the qualitative study have explored the B2B Relationship, which is reflected by dimensions that are demonstrated in Table 1. This study used frequency analysis and discovered the most cited dimensions as a measure. In the retrieval coding of the sample response, the author found frequent codes in favor of a few dimensions, like trust, commitment, satisfaction, cooperation, communication, and power.

Table-1
SUMMARY OF QUALITATIVE FIELD STUDY

B2B Relationship Measurments	Participants																					Freq	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Trust (TRT)	y		y	y	y	y	y	y	y	y	y		y	y		y	y	y	y		y	y	18	81.8
Commitment (COMT)	y	y	y	y	y	y	y	y	y	y	y	y		y	y	y		y	y	y	y	y	20	90.9
Communication (COMU)		y	y	y		y	y	y		y		y	y	y	y	y	y		y	y		y	16	72.7
Satisfaction (SAT)	y	y	y		y		y		y		y	y	y		y		y	y		y	y		14	63.6
Power (POW)	y	y		y		y		y		y		y	y	y		y			y		y	y	13	59.1
Cooperation (COOP)		y	y		y		y		y		y		y		y		y	y		y		y	12	54.5

Source: Created by author

In this study, the author noted some infrequent responses in other dimensions, like adaptation,

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company reputation, trade association membership, etc. But these dimensions were not mentioned frequently. Thus, it was not included in the further study.

B. Quantitative Study (Study 2)

Symmetrical Approach (PLS based SEM analysis)

a) Assessment of the Reflective Measurement Model

Psychometric properties of the first-order reflective construct— TRT, COMT, SAT, COMU, POW, and COOP are presented in Table 2.

TABLE-2
PSYCHOMETRIC PROPERTIES OF FIRST-ORDER RELECTIVE CONSTRUCT

Construct	Item Codes	Item Loading	Mean	St. Dev	t.S-Value
Commitment (COMT) AVE=0.500, CR=0.743	COMT1	0.71	0.71	0.05	13.15
	COMT2	0.67	0.67	0.06	11.54
	COMT3	0.72	0.71	0.06	12.36
Communication (COMU) AVE=0.593, CR=0.741	COMU2	0.65	0.65	0.06	11.45
	COMU6	0.87	0.87	0.02	37.34
Cooperation (COOP) AVE=0.620, CR=0.760	COOP1	0.91	0.91	0.03	28.99
	COOP5	0.65	0.63	0.09	7.30
Power (POW) AVE=0.569, CR=0.796	POW2	0.66	0.66	0.05	12.82
	POW3	0.72	0.72	0.04	18.67
	POW5	0.86	0.86	0.01	61.29
Satisfaction (SAT) AVE=0.578, CR=0.804	SAT2	0.71	0.71	0.04	19.28
	SAT5	0.81	0.81	0.02	35.51
	SAT6	0.76	0.76	0.03	27.08
Trust (TRT) AVE=0.508, CR=0.755	TRT5	0.68	0.67	0.06	11.67
	TRT6	0.76	0.76	0.03	22.47
	TRT1	0.70	0.69	0.05	13.44

*Source: Created by author. Note: *Missing items were discarded due to lower loading less than 0.65 as per [15],[16]* .Measurement model shows under indices — item reliability, internal consistency, and discriminant validity — as suggested [14]-[17], [21]. For this study, the author adopts [16] principles to select a 0.65 cut-off value for item reliability, also 0.60 for exploratory research [15]. All items corresponding to t.S-values found 7.30 to 61.29, which is much more than the threshold value for 1% level of significance. Along with reliability, this study satisfied composite reliability (CR) and AVE with threshold readings of 0.70 and 0.50 as suggested [15], [22].Moreover, the discriminant validity test is a core principle of the SEM-PLS test. In this study, the author followed the Fornell-Larcker criterion (square AVE root greater than off-diagonal values). Finally, it has been statistically evident that the measurement model has satisfied all normative values of reliability, convergent validity and discriminant validity as well.

b. Assessment of Structural Model

The uses of a structural model for the assessment of the relationship between exogenous and endogenous constructs. This study proposed six (06) research hypotheses Ha to validate the proposed model. This study proposed that all measurements (TRT, COMT, SAT, POW, COMU, COOP) have a positive impact on the B2B Relationship. We used the bootstrap method to test all hypotheses. Table 3 presents an evaluation of the structural model reflecting the statistical evidence for model validation. Firstly, this study revealed the coefficients of dimensions and their corresponding t-statistic values. This test result validates the research model and statistically proves that the research hypotheses are accepted. Secondly, this study stated f-squared (f^2) values to outline exogenous constructs' effect on the R-squared. In the validation model, all have a strong effect on the R^2 value of 0.950 as per reference [23]. Finally, this study outlined measures that explained 95% variance and 99.9% predictive relevance of the model.

TABLE-3
EVALUATION OF STRUCTURAL MODEL

Path Link	β	t.S_ Value	Decisions	f-square
COMT -> Relationship	**B** 0.154	10.49	H0 Rejected*	0.392**
COMU-> Relationship	**B** 0.174	9.21	H0 Rejected*	0.373**
COOP -> Relationship	**B** 0.164	10.00	H0 Rejected*	0.452**
POW-> Relationship	**B** 0.303	16.85	H0 Rejected*	1.161**
SAT -> Relationship	**B** 0.360	18.04	H0 Rejected*	1.522**
TRT -> Relationship	**B** 0.240	13.39	H0 Rejected*	0.916**

R^2 (Variance Explained) = 0.950
Q2 (Predictive Relevance) = 0.999

Source: Created by author

Noted: *There is no statistical evidence to accept the null hypothesis (H0) and A t.S- Values are significant at the level 1%; ** F-square is an effect size that measures the change in R^2 when an exogenous (independent) variable is removed from the model. Thus, f-square> 0.35 is considered a strong effect.

Asymmetrical Approach (fsQCA-based analysis)

The intent is to test the combined effect of constructs on outcome variables and find a configurational recipe. Firstly, calibration of crisp values of the data to find fuzzy values through transforming the latent variables calculated. In this calibration process, this study followed full membership and full non-membership and used the percentile (90th = full membership, 10th = full non-membership, and 50th = crossover point) of the latent variable score as per the reference [18].

Subsequently, the author conducted a necessary condition analysis (NCA) to confirm which causal conditions are necessary for the outcome variable. From the analysis of NC, this manuscript shows the NCA report in Table 4. This study found that the causal condition is not necessary, but all are sufficient conditions for desired outcomes for B2B relationships, as per [20].

Table-4
NCA FOR B2B RELATIONSHIP

Casual Condition	Consistency	Coverage
fCOMT	0.756	0.777
fCOMU	0.762	0.864
fCOOP	0.819	0.765
fPOW	0.899	0.732
fSAT	0.862	0.853
fTRT	0.729	0.803

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Lastly, the author conducted sufficiency analysis. This analysis seeks to explore all the different configurations that consistently lead to the outcomes. The process of sufficiency analysis was carried out with the use of the boolean minimization algorithm "Quine-McCluskey". This study generates three types of solutions (Complex, parsimonious and intermediate) to analyze the sufficiency of research conditions. The author used an intermediate solution to find an aggregate configuration that is representative of both conditions' "core" and "peripheral" [24]. Based on the true table and Quine-McCluskey algorithms, this study found that three (03) configurations were derived based on the model developed. Table 5 presents causal recipes. The model f(B2BREL)=f(fCOMT*fCOMU*fCOOP*fPOW*fSAT*fTRT). The intermediate solution reported configuration 2 is fCOMU*fCOOP*fPOW*fSAT with consistency 0.983 and coverage of 0.576, the most suitable recipe for B2B Relationship. Moreover, the solution consistency reported that the consistency of the configuration is 96% and its coverage is 66%. Thus, it has been proved that a multifactorial configuration is relevant and satisfactory.

TABLE-5
CONFIGURATION FOR THE B2B RELATIONSHIP

	Raw Coverage	**Unique Coverage**	**Consistency**
Model: B2B Relationship f(B2BREL)=f(fCOMT, fCOMU, fCOOP, fPOW, fSAT, fTRT)			
Configuration			
1. fCOMT*fCOOP*fPOW*fSAT	*0.555*	*0.065*	*0.976*
2. fCOMU*fCOOP*fPOW*fSAT	*0.576*	*0.086*	*0.983*
3.fCOMT*fCOMU*fCOOP*fPOW *fTRT	*0.434*	*0.022*	*0.989*
Solution coverage: 0.662875			
Solution consistency: 0.965371			

Source: Created by author

IV. DISCUSSION

A. Summary of Findings

Business relationship or B2B Relationship was measured by the diverse nature of measures that support building a sustainable relationship. To explore this confined outcome, this study conducted multi-method and mixed approach research with integration of symmetric and asymmetric methods.

The results of the qualitative study explored six dimensions, such as trust, commitment, cooperation, communications, power, and satisfaction, that have influenced managers to build long-term B2B relationships in the agricultural sector in Bangladesh. This study introduced some other issues, but these issues were not replicated by other respondents. Finally, this study supports preparing a research framework and an extensive field study.

Outcomes of the symmetric analysis were validated by the proposed research model, and statistically proved that explored dimensions like trust, commitment, cooperation, communications, power, and satisfaction have a significant impact on B2B Relationship. This study revealed that dimensions, namely power, satisfaction, and trust, highly influenced building B2B relationships in the context of the agricultural sector. The other three dimensions have less impact on the value of the coefficients.

Finally, the outcomes of asymmetric analysis were to disclose an intermediate solution with three configurational recipes through the application of fuzzy-set Qualitative Comparative Analysis (fsQCA) as depicted in Table 5. As per Pappas and Woodside (2021), reference configuration 2 is more suitable and statistically accepted. This configuration consistency was 98.3% and raw coverage was 57.6%. Configuration 2 revealed that a business relationship developed with a multifactorial recipe. This configuration defines that sometimes trust and commitment do not matter for developing business relationships. The four other core conditions, like communication, cooperation, power, and satisfaction, were considered as core conditions that are sufficient to develop business relationships. But commitment and trust do not provide substantial conditions for business relationships, as mentioned in configuration 2. It has been remarked that present research findings stand in reverse position to the theory Commitment and Trust developed [2] and compiled a list of variables for relationships [7].

B. Implications

The outcomes of the present study are relevant to relationship marketing theory and its implications in the context of B2B relationships. In the following, it contributes to the diverse sectors:

Theoretical Implication: This study theoretically contributes to the domain of relationship marketing through exploring B2B Relationship measurements. Through an integrated research approach, this study validates a new theoretical dimension in the relationship marketing in the context of business-level relationships. Theoretically, this study contributed to the existing research published [2], [7]. Finally, this study explored a new theory or model for business-level relationship marketing.

Managerial Insight: The Present study contributes to existing managerial practices through the development of business relationship building dimensions or measurement. This study will support managers in guiding how they can establish long-term, sustainable relationships with the channel members. This study also contributed to managerial wisdom through new insights of relationship marketing theory, which proved that in the agricultural sector or vulnerable value chain process channel members' trust and commitment do not matter as

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a core condition for building business-level relationships.

Future Research: This study guides future researchers to test this model in other sectors and multicultural sectors to find the generalizability of the model. This study guide for conducting a similar study further proves the research model with a large number of samples and other relevant research designs.

C. Limitations

This study was conducted in a single industry and with a comparatively small sample, based on the industry size. Secondly, this study also collected data by purposive sampling. Finally, this study was conducted based on limited resources. Thus, the author hopes future research will contribute to the sector by overcoming this defined limitation. It has been noted that defined limitations did not impact or negatively hamper existing research outcomes that I present as a novelty study.

V. CONCLUSION

This study presented a B2B Relationship theory and empirically evaluated its measurements. Present literature implicitly focuses on the relationship in context to business, but the relationship in context to B2C is more emphasized. This theoretical partiality motive is the reason for the conduct and design of this research. This study robustly explored and statistically proved that B2B Relationship or business level relationship is mostly developed based on proper communication with partners, extended cooperation with partners, positive uses of power, and mutual satisfaction. This study also proved that trust and commitment between partners were not core conditions.

REFERENCES

[1] J. H. Dyer and H. Singh, "The relational view: Cooperative strategy and sources of interorganizational competitive advantage," Academy of Management Review, vol. 23, no. 4, pp. 660–679, 1998.

[2] R. M. Morgan and S. D. Hunt, "The commitment-trust theory of relationship marketing," Journal of Marketing, vol. 58, no. 3, pp. 20–38, Jul. 1994, doi: 10.2307/1252308

[3] I. Dierickx and K. Cool, "Asset stock accumulation and sustainability of competitive advantage," Management Science, vol. 35, no. 12, pp. 1504–1511, 1989.

[4] S. Ganesan, "Determinants of long-term orientation in buyer-seller relationships," Journal of Marketing, vol. 58, no. 2, pp. 1–19, Apr. 1994.

[5] J. N. Sheth and A. Parvatiyar, "The evolution of relationship marketing," International Business Review, vol. 4, no. 4, pp. 397–418, 1995.

[6] R. M. Morgan and S. Hunt, "Relationship-based competitive advantage: The role of relationship marketing in marketing strategy," Journal of Business Research, vol. 46, no. 3, pp. 281–290, 1999.

[7] D. T. Wilson, "An integrated model of buyer-seller relationships," *Journal of the Academy of Marketing Science*, vol. 23, no. 4, pp. 335–345, 1995.

[8] G. A. Churchill, Jr., "A paradigm for developing better measures of marketing constructs," Journal of Marketing Research, vol. 16, no. 1, pp. 64–73, 1979

[9] M. S. Islam and M. Shamsuddoha, "Assessing sustainability governance and its dimensions," FIIB Business Review, vol. 12, no. 2, pp. 158–175, 2021.

[10] R. B. Johnson, A. J. Onwuegbuzie, and L. A. Turner, "Toward a definition of mixed methods research," Journal of Mixed Methods Research, vol. 1, no. 2, pp. 112–133, 2007

[11] J. C. Greene, V. J. Caracelli, and W. F. Graham, "Toward a conceptual framework for mixed-method evaluation designs," Educational Evaluation and Policy Analysis, vol. 11, no. 3, pp. 255–274, 1989.

[12] R. Y. Cavana, B. L. Delahaye, and U. Sekaran, Applied Business Research: Qualitative and Quantitative Methods. Milton, QLD, Australia: John Wiley & Sons Australia, 2001.

[13] J. M. Morse, "Approaches to qualitative-quantitative methodological triangulation," Nurs. Res., vol. 40, no. 2, pp. 120–123, 1991.

[14] D. Barclay, C. Higgins, and R. Thompson, "The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration," Technology Studies, vol. 2, no. 2, pp. 285–309, 1995.

[15] J. F. Hair, C. M. Ringle, and M. Sarstedt, "PLS-SEM: Indeed a silver bullet," Journal of Marketing Theory and Practice, vol. 19, no. 2, pp. 139–152, 2011

[16] T. T. Moores and J. C. J. Chang, "Ethical decision making in software piracy: Initial development and test of a four-component model," MIS Quarterly, pp. 167–180, 2006.

[17] C. M. Ringle, M. Sarstedt, and D. Straub, "A critical look at the use of PLS-SEM in MIS Quarterly," *MIS Quarterly (MISQ)*, vol. 36, no. 1, 2012.

[18] O. Pappas and A. G. Woodside, "Fuzzy-set Qualitative Comparative Analysis (fsQCA): Guidelines for research practice in Information Systems and marketing," International Journal of Information Management, vol. 58, p. 102310, 2021.

[19] C. C. Ragin, Redesigning Social Inquiry: Fuzzy Sets and Beyond. Chicago, IL: University of Chicago Press, 2008.

[20] S. M. Rasoolimanesh, F. Ali, and J. L. Roldán, "Methodological issues in hospitality and tourism research: A review and research agenda," *International Journal of Hospitality Management*, vol. 95, pp. 102–119, 2021, doi: 10.1016/j.ijhm.2021.102119.

[21] J. Henseler, C. M. Ringle, and R. R. Sinkovics, "The use of partial least squares path modeling in international marketing," Advances in International Marketing, vol. 20, no. 1, pp. 277–319, 2009.

[22] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," Journal of Marketing Research, vol. 18, no. 1, pp. 39–50, Feb. 1981.

[23] J. Cohen, Statistical Power Analysis for the Behavioral Sciences, 3rd ed. New York, NY, USA: Routledge, 2013.

[24] P. C. Fiss, "Building better causal theories: A fuzzy set approach to typologies in organization research," Academy of Management Journal, vol. 54, no. 2, pp. 393–420, 2011.

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