

平成 29 (2017) 年 8 月 8 日

博士論文審査結果報告
Report on Ph.D. / Doctoral Dissertation Defense

政策研究大学院大学
教授 田中 誠

審査委員会を代表し、以下のとおり審査結果を報告します。

On behalf of the Doctoral Thesis Review Committee, I would like to report the result of the Ph. D. / Doctoral Dissertation Defense as follows.

学位申請者氏名 Ph.D. Candidate	Shamsuzzoha		
学籍番号 ID Number	DOC14103		
プログラム名 Program	公共政策プログラム Public Policy Program		
審査委員会 Degree Committee	主査 Main referee	田中 誠 Makoto TANAKA	主指導教員 Main advisor
	審査委員 Referee	LEON-GONZALEZ Roberto	副指導教員 Sub advisor
	審査委員 Referee	荒井 洋一 Yoichi ARAI	副指導教員 Sub advisor
	審査委員 Referee	角南 篤 Atsushi SUNAMI	博士課程委員会委員長 Acting Chairperson of the Doctoral Programs Committee
	審査委員 Referee	真野 裕吉 Yukichi MANO 一橋大学経済学研究科講師 Assistant Professor of Graduate School of Economics, Hitotsubashi University	外部審査委員 Referee from outside institutions
論文タイトル Dissertation Title	Essays on the Status and Determinants of Efficiency and Informality in Manufacturing Firms of Bangladesh		
(タイトル和訳)※ Title in Japanese	バングラデシュの製造業における効率性と正規性の状況と決定要因に関する研究		
学位名 Degree Title	博士 (公共政策分析) Ph.D. in Public Policy		
論文提出日 Submission Date of the Draft Dissertation	平成 29 (2017) 年 5 月 30 日	論文審査会開催日 Date of the Degree Committee Meeting	平成 29 (2017) 年 6 月 27 日
論文発表会開催日 Date of the Defense	平成 29 (2017) 年 6 月 27 日	論文最終版提出日 Submission Date of the Final Dissertation	平成 29 (2017) 年 8 月 7 日
審査結果 Result	合格 Pass		

※タイトルが英文の場合、文部科学省に報告するため、和訳を付してください

If the title is in English, please translate in Japanese in order to report MEXT.

1. 論文要旨 Thesis overview and summary of the presentation.

Thesis overview:

Bangladesh is under transition from an agriculture-dominated economy to an industrialized economy. This dissertation empirically investigates the rapidly growing manufacturing sector in Bangladesh. The focus is on the technical efficiency and informality of manufacturing firms.

The dissertation consists of five parts. The first chapter discusses general background, motivation, and objective of the dissertation. The second and third chapters show the main results of technical efficiency and informality. The fourth chapter provides several policy implications based on the empirical findings. The last chapter concludes the dissertation.

The second chapter examines technical efficiency and its determinants using stochastic frontier analysis (SFA). Manufacturing sectors in this study include garment, leather, textile, chemical, and food industries. Efficiency scores are estimated based on a translog production function with usual inputs such as labor, capital, and intermediate goods. The regression model of SFA incorporates exogenous factors such as managers' experience, education of top managers, and access to financial system, which may affect technical efficiency of firms. The main finding of this chapter is that human capital of top managers (experience and education) and access to financial services significantly increase the technical efficiency of manufacturing firms.

The third chapter investigates the impact of formalization on productivity of manufacturing firms. This chapter also examines the determinants of formalization. A typical classification of formality is a binary or discrete one, i.e., formal or not. However, formalization can be rather continuous ranging from very formal to less formal. Thus this study also uses principal component analysis (PCA) to define continuous formalization of firms in addition to the usual binary classification of formality. The results show that formalization has significantly positive impact on productivity. Specifically, this study finds that the more formal a firm is, the more productive it is, based on the continuous classification of formality. Furthermore, this study shows that formalization is significantly affected by factors such as owner's human capital (experience and education), parents' schooling years, distance from registration authority, and frequency of inspection.

The dissertation has significant contributions to the existing literature. There is a strand of literature that studies the impact of human capital on general performance of firms in developing countries. However, studies that look into rigorous technical efficiency of firms in this context are scarce. The second chapter fills this gap in the literature by estimating rigorous technical efficiency of manufacturing firms based on a SFA approach and further identifying human capital as an important determinant of efficiency in Bangladesh. The literature on informal sector is also limited partly due to data availability. Moreover, most studies use a binary classification of formality (formal or not). The third chapter adds to the scarce literature on informal sector in developing countries by looking into the impact of formalization and its determinants. Particularly, this study further uses a PCA approach to analyse continuous formalization of firms, which is another contribution. Both chapters are publishable in peer-reviewed academic journals.

Presentation:

The candidate first talked about the background and motivation of the dissertation and then presented the main findings of the two main research chapters. He then responded to the questions and comments from the examiners and audience.

2. 審査報告 Notes from the Degree Committee (including changes required to the thesis by the referees)

The examiners were generally satisfied with the contribution of the dissertation and unanimously agreed that the dissertation was worthy of a pass. They however had several suggestions for improvements. Most notably, they pointed out that some policy implications do not derive directly from the empirical finding of the dissertation. They suggested that the candidate carefully discuss policy implications relating them to the actual findings. Other comments from the examiners include:

- Improve the exposition, for example, by rearranging the tables and by using appendix.
- Carefully discuss the possible endogeneity concern in the production frontier estimation.
- Carefully discuss innovation in the context of Bangladesh.
- Can use AIC or BIC to compare models.
- Discuss more on marginal effect for heteroscedastic models.
- Possible typo in equation (11).

3. 最終提出論文確認結果 Confirmation by the Main Referee that changes have been done to the satisfaction of the referees

The task of final check was delegated to the main examiner. The candidate revised the dissertation in line with the comments by the examiners. The revision was satisfactory and the quality of the dissertation was improved.

4. 最終審查結果 Final recommendation

Final recommendation was a pass. We recommend that the degree of PhD in Public Policy be awarded to Mr. Shamsuzzoha.