

Transformation in the RMG Sector in Post-Rana Plaza Period: Findings from CPD Survey

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Second Session

Changes in Ownership Structure, Management Practices and Technology Use in the RMG Enterprises: Their Relationship with Enterprise-level Performance

Presentation by

Dr Khondaker Golam Moazzem

Project Director, CPD-RMG Study and Research Director, CPD

And

Abeer Khandker

Visiting Research Associate, CPD and Senior Lecturer, East West University

Study Team

Dr Khondaker Golam Moazzem, Project Director, CPD-RMG Study and Research Director, CPD

Mr Faijan Bin Halim, Research Associate, CPD-RMG Study

Engr Faruk Ahmed, Industrial Engineer, CPD-RMG Study and Senior Lecturer, BGMEA University of Fashion and Technology (BUFT)

Mr Minhaz M Reza, Programme Associate, CPD-RMG Study

Md Arfanuzzaman, Programme Manager, CPD-RMG Study

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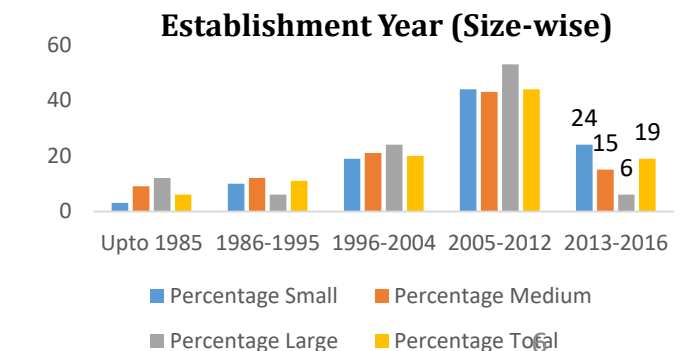
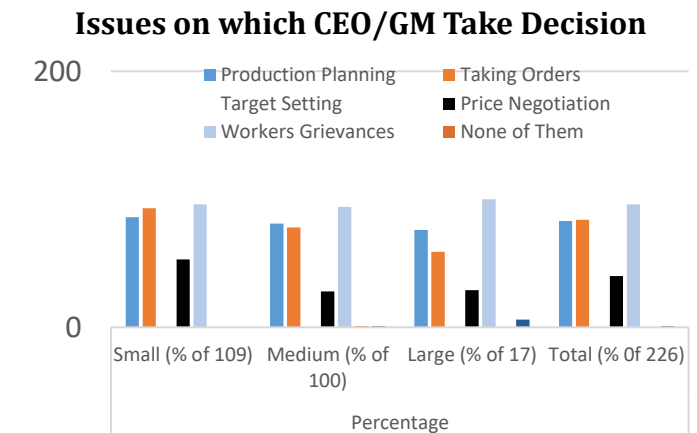
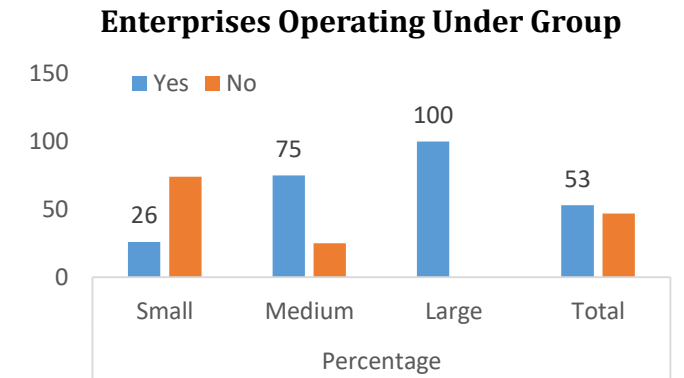
1. Introduction

- The ownership, management and technologies are often less discussed in the context of Bangladesh's apparels enterprises.
- Traditionally operation of apparels enterprises in Bangladesh focused on volume-led, physical labour induced and moderately sensitive to health and hygiene related operational practices.
- Better management and operation in the RMG enterprises are associated with changes in production planning, cost management, human resource management, compliance assurance and industrial relations etc.
 - These issues have become more important after the Rana Plaza tragedy
- Overall, the management related issues are becoming more and more important with a view to improve business operation of RMG enterprises of Bangladesh.
- On the other hand, the RMG sector has been compelled to comply with technological upgrading under a new business environment in order to maintain competitiveness in the post Rana Plaza period.
- This study will examine the changes in ownership, management and technologies in RMG enterprises during post-Rana Plaza period and identify factors responsible these changes.

2. Ownership and Management related Issues

2.1 Changes in Ownership Structure

- **Family-based private limited companies and groups of companies tend to dominate**
 - 65% are private limited companies- a part of enterprises are being directed by second generation family members
 - About 88% of companies have on average three directors two of whom are from the same family. No independent directors
- **Growing influence of group of companies**
 - About 53% of RMG enterprises are subsidiaries of different group of companies
- **Indication of rise of corporate practices**
 - Directors still play a major role in price negotiations with buyers; but participation of managers in price negotiation is increasing
 - Only 47% of directors visit factories on a daily basis- delegation of authority to the managers is mainly driven by 'push factors'
- **Sizable number of factories (19%) established after Rana Plaza tragedy while a part of factories still operate in shared buildings**



Source: CPD-RMG Survey, 2018

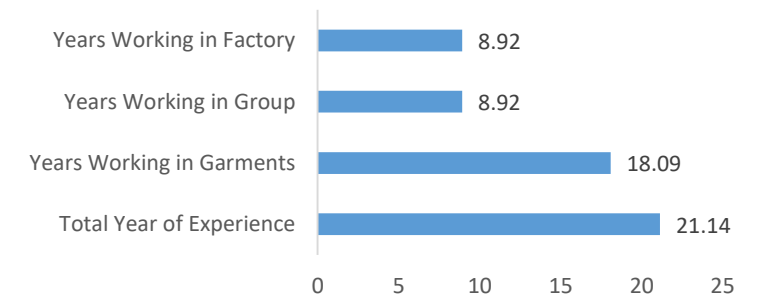
2.2 Weakness in Local Management Staffs

- **More Responsibility to Senior Management**
 - Each management staff handles about 60 workers in 2016 up from 56.1 in 2012.
- **Senior staff have long careers with little diversity**
 - With an average working experience of 21.1 years, senior staffs spent on average 18.1 years in the garments sector
- **Majority of managers have modest academic background**
 - About 51% managers have a post-graduate degree- but about one-fifth of managers did not complete their graduate level.
 - Managers do not have specialised degrees necessary to pursue the management related jobs in a labour-intensive industry
- **Foreign staffs are found to be important in factory management**
 - About 13% enterprises have reported to have foreign staff (47% of large enterprises)
 - Foreign professionals work in those sections where specialized knowledge and professional skills are required

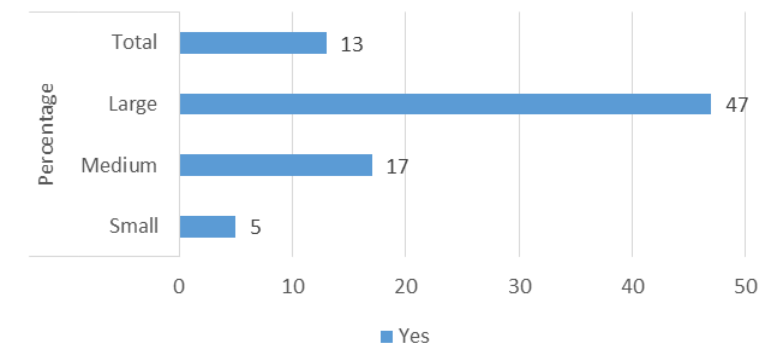
Information on Management Professional (per enterprise)

Management (Av. No.)	2012	2016
Senior Level Management	24	25
Mid-Level Management	99	149
Total	123	174
Ratio of mid-level management and senior level management staff	4.1	5.96
Ratio of workers with management staff	56.1	60.2

Average Year of Experience of Senior Staff (in Year)

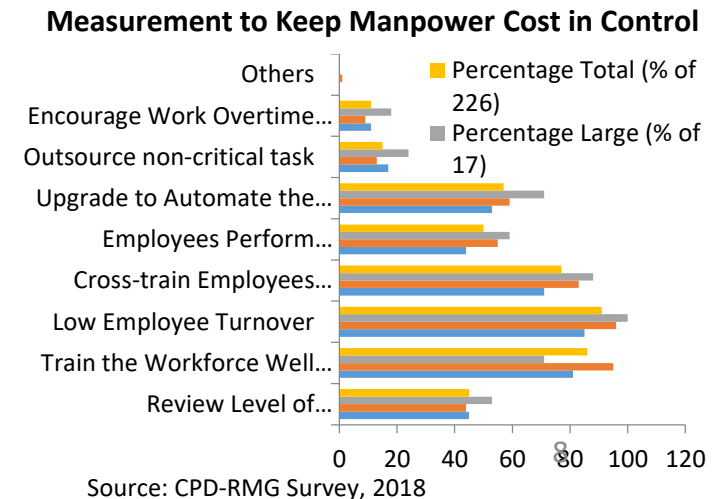
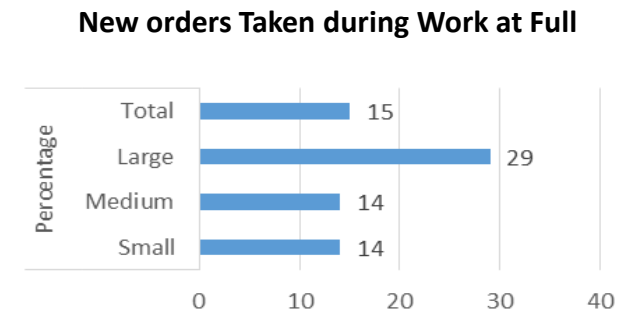
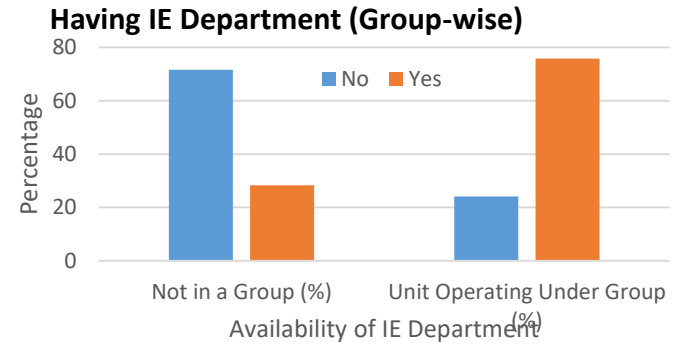


Foreign Staff Working in Factories



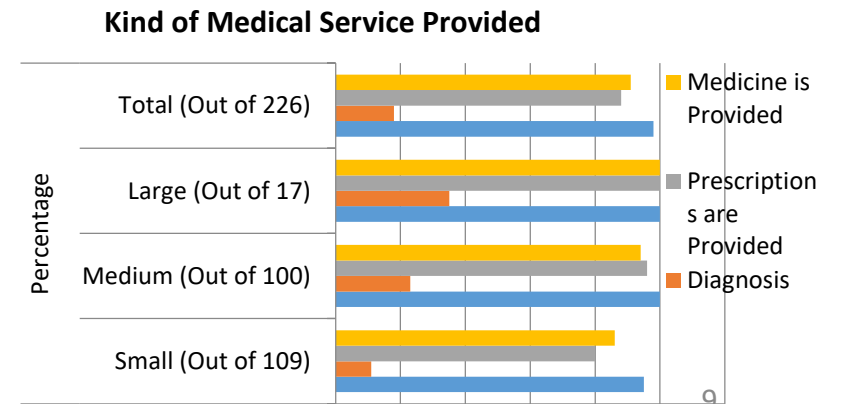
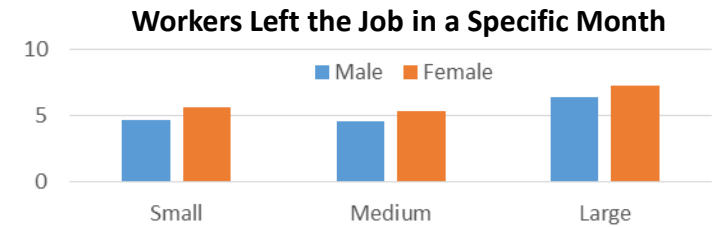
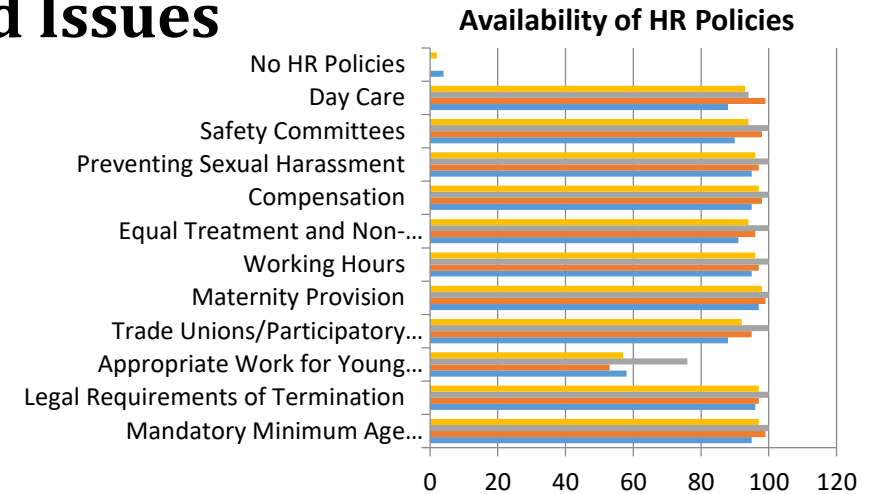
2.4 Increasing Operational Complexities

- **Introducing new departments to address new requirements**
 - Operation is becoming increasingly complex with more specialized departments with better allocative efficiency in time and resources.
 - 76% of group and 24% of non-group enterprises have IE depts
 - Lack of specialized staffs - gap is met by hiring foreign staffs
- **Growing role of new platform of production orders**
 - 28% of enterprises have been taking orders through online platform mainly by large scale enterprises
 - Not yet ready to take orders of big online platforms-Amazon, Alibaba
- **Continued tendency to take excess orders**
 - About 15% entrepreneurs took excess orders
 - Manage through outsourcing within the group, coordinate with other production orders, by increasing the work intensity
- **Diverse approach to keep management cost under control: workers' replacement is getting costlier**
 - Factories put emphasis on lower employee turnover (91%), training initial workforce (86%) and cross-training employees (77%)



2.5 Differences in Management of Worker Related Issues

- **Proper practice of HR related policies is still in question**
 - Most enterprises follow different types of HR policies.
 - Workers in small factories are less satisfied
 - Over 80% factories provide training to existing workers and workers without a background in RMG
- **Workers' frequent turnover is a major concern**
 - Despite various efforts in reducing employee turnover, on average about 5.3% of workers resigned every month - female workers left more than male workers in a month
 - Management view: lack of discipline, immoral activities and violence against women
 - Workers' view: family issues, better opportunities
- **Support facilities for workers remain weak**
 - Support services are not well-organised and are not efficiently operated - only 18% enterprises have provided diagnostic facilities for diseases
 - Facilities are available more in large and medium scale enterprises



2.6 Huge Variation in Management Performance Score

- There are significant differences in management scores according to size, type of company, contractual arrangement and location
- Huge gap in management score between different types of enterprises (Fig 1)
- Sole proprietorship companies are behind in management performance (Fig.2)
- Chittagong based enterprises lag in management practices (Fig.3)
- Enterprises working with brands/retailers perform better in management practices (Fig 4)
- Enterprises under group of companies are better managed (Fig 5)

Fig 4: Average Management Score of Companies in terms of Their Contractual Arrangement

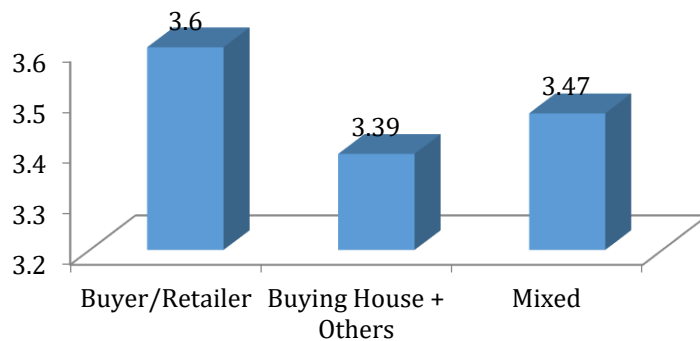


Fig 5: Average Management Score (Group-wise)

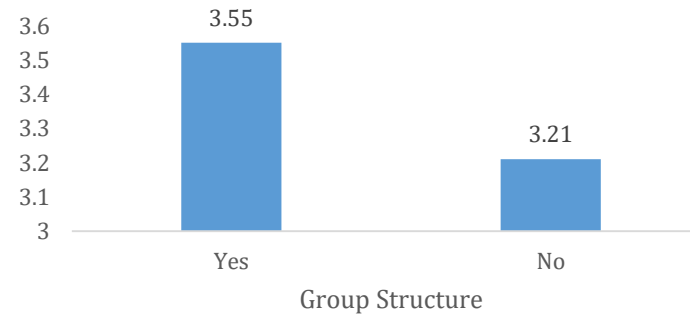


Fig 1: Average Management Score (Out of 5)

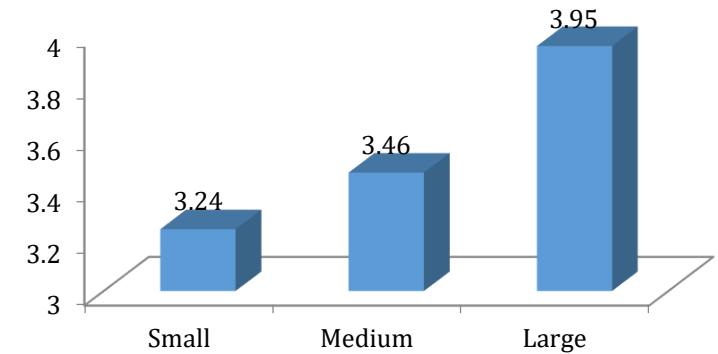


Fig 2: Management Score for Different Companies

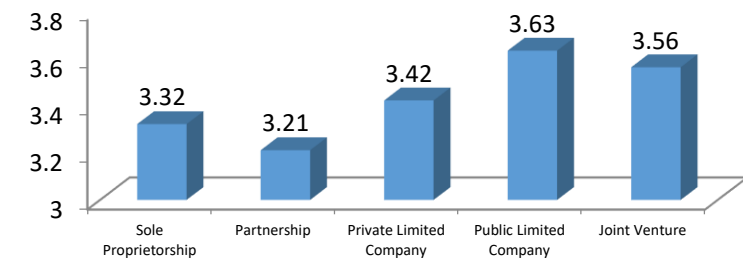
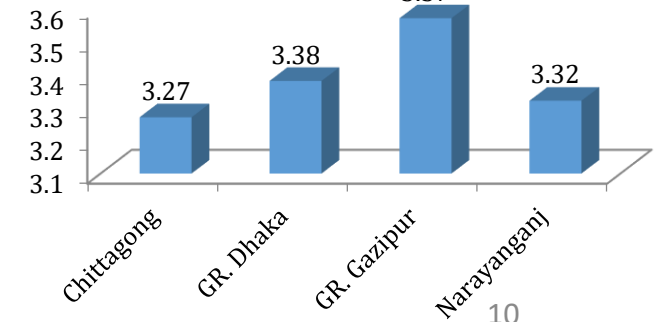


Fig 3: Average Management Score for Companies Located in Different Regions



2.6 Huge Variation in Management Performance Score

- Managers with poor academic record and less experience cause low management score for firms (Fig 1 and Fig 2))
- Managers have exclusive training on RMG sector could better manage factories (Fig. 3)
- Presence of foreign staff contributes positively to management performance (Fig. 4)

Fig 3: GM Training Received (Average Management Score)

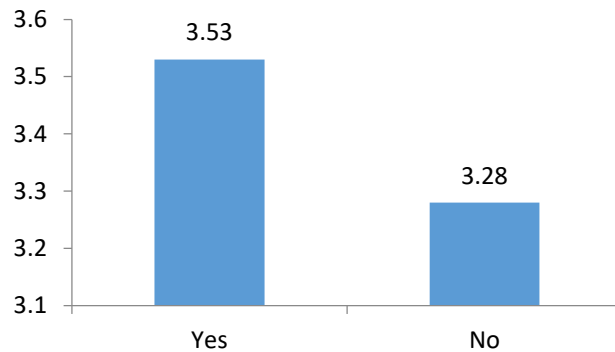


Fig 4: Average Management Score in Enterprises with or without Foreign Staffs

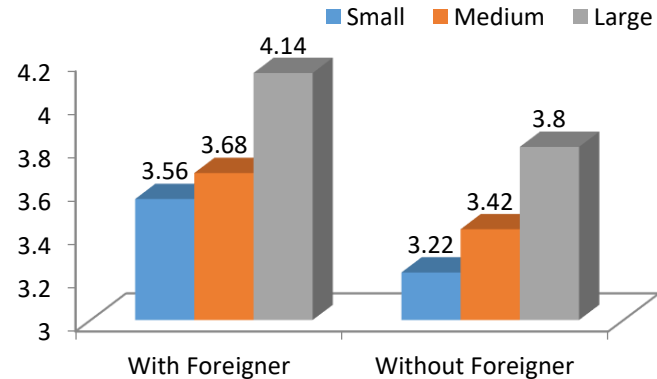


Fig 1: Average Management Score in terms of Manager's Academic Qualification

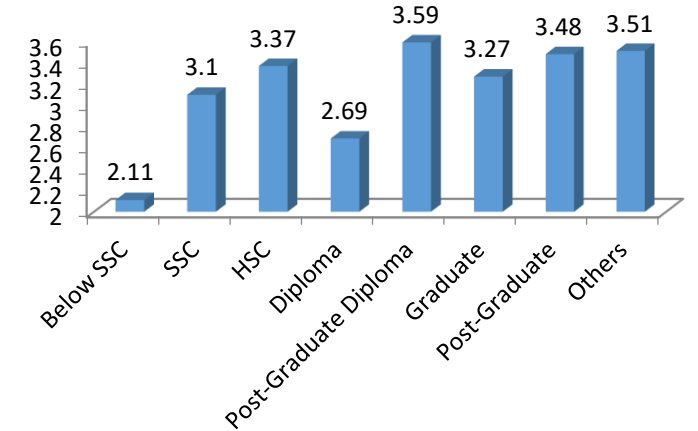
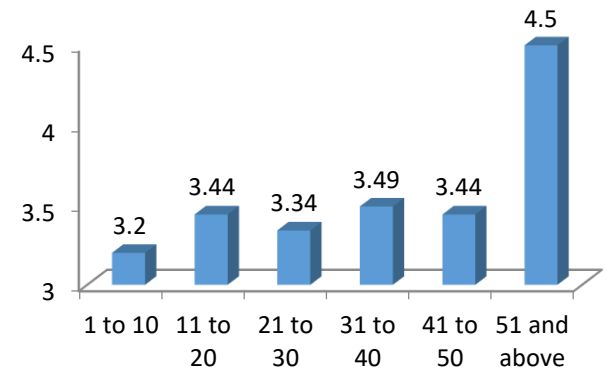


Fig 2: Average Management Score in terms of Manager's Experience



2.7 Factors Affecting Quality of Management: Regression Analysis

- Factories operating under group, general manager having RMG training, large size factory and factories having foreigner shows significant impact on the quality of the management.
 - Management practices tend to be better by 4.9 percentage points if the enterprises are subsidiaries of group of companies
 - Similarly, management practices of large enterprises tend to be better by 6.1 percentage points
 - Interestingly, GM's skills particularly having RMG related training tend to increase management score by 2.9 per cent
 - Presence of foreign workers also tend to increase management score by 4.6 percentage points.
- Such changes are observed at 5-10 per cent level of significance.

Factors Affecting Management Quality		
Management Score	Coefficient	P>t
Factory Type (woven)	-1.650 (1.784)	0.356
Group	4.927 (1.984)	0.014**
Ownership (sole proprietorship)	-0.462 (2.718)	0.865
Ownership (private)	0.364 (2.245)	0.871
GM Education (Post-Grad)	2.179 (1.592)	0.173
GM RMG Training	2.951 (1.717)	0.087*
Owner Visit	-0.170 (1.813)	0.925
Manager Autonomy	0.627 (0.687)	0.362
Factory Size (small)	-0.961 (1.979)	0.628
Factory Size (large)	6.139 (3.131)	0.051*
Factory Zone (gazipur)	1.684 (1.941)	0.386
HR RMG Training	-0.979 (1.624)	0.547
Have Foreigner	4.597 (2.449)	0.062*
Brand/Retailer	1.277 (2.203)	0.563
Buying House	0.882 (4.840)	0.856
Mixed	4.078 (2.676)	0.129
Worker Education Score	0.259 (0.801)	0.746
Constant	57.513 (6.836)	0.000
Number of Observation: 226, R ² = 0.194		

3. Technology related Issues

3.1. Level of Technological Development in Sample Enterprises

- **Level of technology use differs widely across enterprises**
 - Sample enterprises differ a lot in technology use - about 21% sample enterprise are well 'advanced' in technology use
 - But 16% cent enterprises are well behind ('low') in technology use.
 - Only 4% small enterprises categorized as 'advanced' compared 38% of medium and large scale enterprises.

Level of Technological Development (Size wise)

Factory Size	Technology Level (%)				
	Advanced	Moderately High	Moderate	Low	Total
Large	37.5	62.5	0	0	100
Medium	38.03	28.17	30.99	2.82	100
Small	4.94	22.22	43.21	29.63	100
Total	21.25	26.88	35.63	16.25	100

3.2. Technology as an Influencing Factor on Firm Performance

- One indication of process upgrading is reduction in Number of Production Lines and Usages of Workers per Line, which is evident from the data.
- Domestic value addition is still at a modest level
- Average lead time is decreasing
- Slow progress in product upgrading; one fifth of enterprises depend on single product
- Most of the enterprises lag in functional upgrading

Number of Machines and Workers Used Per Production Line

	Factory Size			Factory Type		Overall
	Large	Medium	Small	Knit	Woven	
Worker/Line	62.105	66.54	47.16	39.56	79.39	56.93
Machine /Line	45.46	48.42	41.59	32.28	61.29	44.93
Line	47.42	13.28	6.11	14.07	10.21	12.39

Number of Products Produced by Enterprises

Number of Major Product	Number of Factories Produced Major and Minor Products				Whether factories produced other products (Y/N)?
	Total Number of Factories produced Major Products	Factory Size			
		Large	Medium	Small	
1	19.9	23.5	20.0	19.3	12.1
2--3	31.0	0.0	35.0	32.1	36.4
3--4	27.9	41.2	22.0	31.2	24.2
5--6	11.1	23.5	10.0	10.1	12.1
7--max	8.0	5.9	11.0	5.5	0.0
No information	2.2	5.9	2.0	1.8	15.2
Total	100.0	100.0	100.0	100.0	100.0

3.3. Impact of Technological Advancement on Workers

- Sample RMG enterprises are of different categories in terms of level of technological advancement – about 21% enterprises are technologically ‘advanced’, 27% enterprises are technologically ‘moderately high’, 36% are ‘moderate’ in technology use and another 16% are ‘low’ in technology use.
- Technology is sometimes considered to be labor displacing. However, comparing average labor per factory of 2012 and 2016 would suggest that technological progress in RMG industry is still not labour displacing, as the ratio has increased on average.

Technological Progress and Labour Use in RMG Enterprises: 2012 and 2016

Technology Level	Avg. Labor per factory in 2012	Avg. Labor per factory in 2016	Changes per year
Advanced	1398.78	2048.85	11.6
Moderately High	683.33	968.26	10.4
Moderate	412.68	555.82	8.7
Low	289.3	389.8	8.7

3.4. Worker Efficiency of Sample Enterprises

- Efficiency have been measured by using the following the formula
 - $\text{Efficiency} = (\text{Output} * \text{SMV} * 100) / (\text{No. of worker} * \text{working hour} * 60)$
 - $\text{SMV} = \text{Basic Time (BT)} + \text{Allowance}$
 - $\text{BT} = \text{Observed Time (OT)} * \text{Observed Rating (OR)} / 100$
- Analysis of efficiency data reveals that sample enterprises' line level efficiency is 58.4%.
 - This is low compared to that in Vietnam and China.
 - BGMEA enterprises are more efficient compared to that of BKMEA ones (3.1% more efficient) which indicate their comparative advantage in terms of using technology, better management and other issues. The females are ahead of males in terms of level of efficiency (by about 0.29%)

Worker Efficiency Analysis (Type wise)

Organization	N	Mean	Std. Deviation
BGMEA	1437	0.5895	0.2139
BKMEA	586	0.5717	0.21184
Overall	2023	0.5843	0.21341

3.4. Worker Efficiency of Sample Enterprises

- Upper grade workers particularly senior operators are more efficient than mid and low skilled workers
- Workers working in non-hazardous working conditions are 24.6% more efficient compared to workers working in less cleaned environment followed by 14.9% and 10.8% respectively more efficient compared to those working in noisy and dusty places.
 - Lack of cleanliness is found to be more efficiency reducing among the workplace hazards.
- Similarly, mode of transport for commuting factory is equally important for efficient worker operation. Employees who could avail factory transport and use rickshaws are found to be more efficient compared to those who commute through other means.
 - The least efficient are those workers who commute by foot or who use boats.

Efficiency for workers working under different Grades

Efficiency	Sample size	Mean	SD
Senior operators	643	.6092	.197
Operators	366	.5674	.2049
Asst. Operators	433	.5865	.2066
Junior Operators	288	.5520	.2439
Trainees	263	.5821	.2304

4. Conclusion

- A number of medium to long term initiatives are required in order to improve the management practices in the RMG enterprise.
- First, given the positive contribution made by educated and trained management professions, the sector should promote such categories of staff through targeted measures such as compulsory minimum academic degrees and training for senior and mid-level management professionals
- Second, better educated and trained management professionals need to be made available to the regions which are behind in terms of management performance such as Chittagong and Narayanganj.
- Third, a separate service rule should be introduced for different categories of management and other professionals in the RMG sector.
- Fourth, given the dearth of sufficient management and other professional staffs in the positions of production planning, merchandising, quality control and industrial engineering, enterprises push to recruit foreign staff in those positions.
 - Necessary academic and professional courses need to be introduced with high standards where local professionals get the training. Better institutes need to be established for advancing the level of management practices in the garments sector.

4. Conclusion

- Fifth, special effort to be undertaken targeting the Board of Directors of private limited companies in order to make them effective and functional.
- Sixth, as many firms are lagging in technology use, introduction of advanced production processes in different factories and the proper training of workers and management staff is important.
 - Also, RMG enterprises need to make substantive investment for economic upgrading in terms of using advanced machineries, design and product development, introducing new departments, non-cotton textiles and IT based marketing facility.
 - A ‘technology upgrading’ fund could be developed which facilitate enterprises in undertaking those measures.
- Seventh, there should be more effort towards developing design functions in factories, so that functional upgrading could be achieved.

Thank you.