

Navigating Unrest and Automation: The Fight to Future-Proof Bangladesh’s Apparel Sector for Sustainable Growth



Bangladesh recently went through a significant period of political upheaval, lasting from July to early August 2024, marking a pivotal moment for the nation. With Dr. Yunus stepping in as head of the interim government, his leadership presents a unique opportunity for Bangladesh. His esteemed global reputation and strong diplomatic ties with Western economies are expected to foster positive outcomes in upcoming trade benefit negotiations. By leveraging these international connections, the interim government aims to navigate the post-LDC trade landscape smoothly, ensuring export stability and sustaining the country’s economic growth on the global stage.

The political transition has brought short-term challenges, particularly in the Ready-Made Garments (RMG) sector. Worker unrest over wage demands and broader issues of law and order, such as student protests, have caused uncertainties for international buyers, prompting some to shift orders to competing countries. While export growth, compliance, and environmental sustainability are key priorities, worker wellbeing is essential for long-term success, and restoring global buyer confidence is crucial for maintaining Bangladesh's competitiveness.

On the global front, Bangladesh faces new challenges, including automation from the 4th Industrial Revolution, geopolitical shifts, stringent circularity and decarbonization regulations from the EU, and the upcoming Least Developed Country (LDC) graduation, further straining the RMG sector.

It’s also important to highlight that the apparel sector supports over 4 million workers, with women comprising 60% of this workforce. Any upheaval in the industry poses a significant threat to their livelihoods. As the sector grapples with these challenges, the well-being of millions, particularly women who are essential to its success, hangs in the balance.

In light of these challenges, LightCastle Partners, an international consulting firm, in collaboration with The Policy Exchange of Bangladesh, hosted their final and fourth dialogue event titled ‘Future-Proofing RMG: Tackling Automation for Sustainable Growth and Worker Wellbeing’ as a part of the Bunon 2030 initiative. This initiative is part of LightCastle’s ongoing commitment to strengthening the apparel ecosystem through comprehensive research, private-sector engagement, and targeted advocacy efforts.

Oporajita and Bunon: United for Collective Impact and Women Workers’ Wellbeing

Bunon 2030, supported by the H&M Foundation and facilitated by The Asia Foundation, is part of the ‘Oporajita: Collective Impact on the Future of Work in Bangladesh’ initiative. It shares a common goal of protecting the future livelihoods of women garment workers in Bangladesh. The project focuses on enhancing sector competitiveness, skills development, and employment opportunities for women in the apparel industry, informed by a deeper understanding of how technology and automation are reshaping the landscape.

The Bunon 2030 initiative has conducted scenario mapping, assessed key policy needs, and organized a series of dialogues with cross-sector stakeholders. The first dialogue addressed Circularity, Decarbonization, and Competitiveness, followed by a focus on Wellbeing and the future of apparel workers. The third was a policy roundtable on ‘Sustainable Apparel’s Future by 2030,’ and the final dialogue on October 21 concluded the series. Looking ahead, Bunon 2030 plans to host a national dissemination event to unite innovators, industry leaders, and policymakers, ensuring sustainable livelihoods for women garment workers amid evolving challenges.

Future-Proofing Jobs and Industry in Bangladesh’s RMG Sector



The dialogue commenced with opening remarks from Kazi Faisal Bin Seraj, Country Representative of The Asia Foundation, who underscored the urgent need for collective action to future-proof the RMG industry.

He highlighted that while automation should drive higher productivity, it is also crucial to prioritize worker wellbeing in this process. Recognizing the complexities of the situation, he stated *“Brands like H&M are actively identifying the challenges and engaging relevant stakeholders such as FSG and The Asia Foundation, alongside LightCastle Partners and Policy Exchange, to enhance dialogue and research efforts. The emphasis remains on increasing productivity without overlooking the importance of ensuring the wellbeing of workers throughout this transition.”*

With this narrative in place, the session began with a virtual presentation from Sumit Manchanda, Senior Advisor for Green Growth Strategies, who previously led green manufacturing initiatives at the International Finance Corporation (IFC), part of the World Bank Group.

He highlighted how Bangladesh can leverage its apparel sector for future economic development and diversification as it

approaches its graduation from LDC status in 2026. However, the country faces significant challenges, with the World Trade Organization projecting a potential loss of over 14% of exports—\$7.8 billion annually—due to the loss of preferential trade benefits.

Mr. Manchanda further introduced the economic complexity framework by César Hidalgo of MIT and Professor Ricardo Hausmann of Harvard, emphasizing that improving economic complexity should be a key policy goal. Studies link higher complexity to sustainable growth, resilience to economic shocks, better wages, and environmental sustainability. Currently, Bangladesh ranks 101 out of 133 countries in economic complexity, indicating a reliance on simple products. However, there are ample opportunities for the nation to enhance its economic complexity and benefit from the positive outcomes associated with it.

Technology and automation are vital for advancing economic complexity in the apparel sector. The U.S. and U.K. demonstrate how adopting innovations like RFID for inventory management, laser technology for denim finishing, and tools like 3D body scanning and AI can boost productivity and innovation. Vietnam has successfully used AI-powered inventory systems and automated machines to reduce waste and improve efficiency, while India leverages AI for trend prediction and 3D printing to enhance market alignment and cut production costs.

Although Bangladesh has made strides in adopting these technologies, further integration can significantly enhance productivity, improve product quality, reduce lead times, and create new market opportunities, positioning the country for sustainable growth in the evolving global landscape.

While Mr. Manchanda addressed the global landscape and trends in automation across developed countries, Mr. Zahedul Amin, Co-founder, and Director at LightCastle Partners, presented a compelling keynote on the local context of automation in Bangladesh, emphasizing its implications for workers' wellbeing.

He highlighted several key points regarding the state of automation in Bangladesh's textile and RMG sectors. Over the years, the country has integrated automation across its value chains, but currently, only 15% of its manufacturing processes are mechanized. While the textile value chain is fully automated, certain tasks within the RMG sector—such as ironing, folding, and packaging—still depend on manual labor. Additionally, he noted the global shift towards high-tech manufacturing in countries like China, Vietnam, Turkey, India, and Cambodia, emphasizing the need for Bangladesh to keep pace with these developments.

With this, he set the stage for the panel discussion, concluding on a thought-provoking note about where the balance lies between automation and worker wellbeing, and how this equilibrium can be achieved.

The panel discussion was moderated by Dr. M. Masrur Reaz, Chairman of Policy Exchange Bangladesh, and featured a distinguished lineup of industry leaders and experts who delved into pressing issues facing the sector. The panel included Professor Dr. Engineer Ayub Nabi Khan, Vice-Chancellor of BGMEA University of Fashion and Technology (BUFT); Shams Zaman, Country Managing Partner of PricewaterhouseCoopers (PwC) Bangladesh; Habibullah N. Karim, Founder and CEO of Technohaven Company Limited; Mohsina Yasmin, Former Executive Member of BIDA; and Ainee Islam, Director of Program Development at The Asia Foundation.

The panelists stressed the need for Bangladesh's garment sector to adopt advanced technologies to boost productivity, efficiency, and product quality while unlocking new market opportunities. However, challenges such as job displacement, skills gaps, high investment costs, and infrastructure limitations were highlighted.

To balance competitiveness and worker wellbeing, strategies include upskilling, reskilling, diversifying products, and fostering innovation. Prioritizing sustainability, offering financial support, and improving access to finance are also key to the sector's growth.

A Showcase Session for Future-Forward Solutions



Following the discussion, an innovative showcase featured Md. Ridwan Hossain, a Computer Science graduate from North South University, demonstrated his innovation, ThreadBridge - a QC Glass. This tool enhances fault detection in RMG production, speeding up factory quality control with accurate, rapid detection and easy integration into current processes.

Shimmy Technologies Inc. and Solvei8 also took the stage during the showcase session. Solvei8 is leading the charge in manufacturing excellence with their Factory OS, a mobile-based solution that provides real-time asset and maintenance monitoring to significantly reduce production downtime. Their modular Manufacturing Execution System (MES) is meticulously designed for the intricate processes of apparel manufacturers, allowing users to seamlessly track and control operations from fabric inspection to packing.

In contrast, Shimmy highlighted the transformative impact of industrial ed-tech, which not only enhances factory efficiency but also empowers workers to upskill and reskill at a pace that aligns with the evolving demands of Industry 4.0.

Closing Remarks on the Future of Apparel

Finally, the dialogue concluded with closing remarks from Shams Mahmud, Director of BGMEA, and Managing Director of Shasha Denims. He emphasized, *“Despite significant sales, we have failed to reinvest in upgrading technology or upskilling our workforce. Access to finance remains the biggest barrier to making these critical improvements.”* He also stated the need for a national framework for decarbonization to support sustainable growth in the industry.

Therefore, the sustainability of the apparel sector hinges on its alignment with global standards for resource efficiency, climate adaptation, and decarbonization. Now, automation presents both benefits and challenges for Bangladesh, promising to enhance competitiveness and efficiency while reducing lead times. However, this technological advancement also brings the risk of job displacement, making it imperative to prioritize the reskilling and upskilling of workers for higher-skilled positions. Ensuring a smooth transition is essential to minimize social and economic impacts, allowing the workforce to adapt successfully to the evolving landscape while safeguarding livelihoods and fostering a resilient industry.

LightCastle’s Work in the RMG Industry & Upcoming Initiatives

Over the past seven years, LightCastle has undertaken a multitude of interventions in the Ready-Made Garments (RMG) sector, culminating in this comprehensive study—a strategic roadmap for the Bangladesh apparel industry. The landscaping study - ‘Threads of Progress’ highlights the challenges and opportunities the sector faces as it strives to enhance competitiveness, promote sustainability, and improve conditions for workers. Additionally, the program envisions hosting a national dissemination session where insights from four dialogues held over the years will be shared. These sessions aim to foster collaboration among ecosystem stakeholders, facilitate enabling policies, and guide the sector toward a more sustainable and prosperous future.

The Bunon 2030 publications are publicly available and can be downloaded from:

<https://www.lightcastlepartners.com/bunon2030/>

Distinguished Dialogue Panelists & Speakers:



Ainee Islam
Director, Program Development
The Asia Foundation



M Masrur Reaz, PhD
Chairman and CEO
Policy Exchange Bangladesh



Prof. Dr. Engr. Ayub Nabi Khan
Pro Vice Chancellor
BGMEA University of Fashion &
Technology (BUFT)



Shams Zaman
Country Managing Partner
PwC Bangladesh



Habibullah N. Karim
Founder & CEO
Technohaven Company Ltd



Mohsina Yasmin
Former Executive Member
BIDA



Zahedul Amin
Co-Founder and Director
Finance, Strategy & Consulting
Services
LightCastle Partners



Shams Mahmud
Director, BGMEA
Managing Director, Shasha Denims