

Dubai's Technological Advancements: Enhancing Industrial Laborers' Lives

By: Dorothy Jane Thomas¹

¹Master of Science in Nonprofit Leadership and Master of Philosophy in Organizational Dynamics, University of Pennsylvania

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Abstract

Dubai's rapid development relies heavily on its industrious labor force. Unfortunately, these workers often face tough conditions. In response, people and organizations in Dubai are pioneering advanced technology to promote worker safety and quality of life. Initiatives like Emirates Global Aluminium's 'Beat the Heat' program and WakeCap's smart helmets are revolutionizing workplace safety by preventing heat-related illnesses and providing real-time monitoring. Additionally, platforms like PotentiAI and Smart Labour are empowering workers with tools for career advancement and personal development. By sharing its successes and promoting international collaboration, Dubai can inspire a global movement towards prioritizing worker well-being and opportunities.

Introduction

Given Dubai's rapid pace of development and ambitious construction ventures, industrial laborers play a crucial role in the city. Unfortunately, these individuals experience numerous challenges, including safety hazards, harsh working conditions, physical strain, limited access to healthcare, and fewer opportunities for career advancement. People and organizations in Dubai realize these challenges and aim to address them by introducing various technologies to protect and support laborers.

Dubai's initiatives for laborers' well-being, such as the 'Beat the Heat' program, wearable safety technology, WakeCap, PotentiAI, Smart Labour, and information kiosks, demonstrate its forward-thinking approach to addressing the demographic's needs. As other nations develop their cities, they, too, must consider construction worker's health and wellness. Dubai's efforts, especially regarding integrating advanced technology, serve as an example to other regions. It clearly displays the city's commitment to valuing those who have supported its vast pursuits.

Though the region has implemented various innovative and advanced procedures to protect its workers, awareness, and scalability of its measures are very low. This article introduces Dubai's advanced technologies while highlighting how these measures can be taken to the next level, transforming the landscape of safety for this demographic, not only locally, but globally too.

Emirates Global Aluminium's Initiatives to 'Beat the Heat'

Heat-related illness, especially in the summer, is a serious and life-threatening issue for construction workers in the Middle East. Emirates Global Aluminium (EGA) launched the 'Beat the Heat' program to prevent and raise awareness of such illnesses. The campaign keeps workers cool and protected through hydration tests, cooling showers, cooling booths, drinking stations, icemakers, and portable air conditioning units. These initiatives have helped the organization achieve two consecutive summers of zero heat-related illnesses, a significant success. EGA is attempting to ensure that all workers benefit from the latest advancements in worker protection.

In 2021, there were two heat-related cases at EGA. Both needed urgent responses at the organization's on-site medical centers. Fortunately, since the team is equipped to handle such matters, they were able to immediately administer intravenous drips for rehydration and help their employees fully recover in just a few hours. On-site medical centers are equipped to provide immediate and comprehensive care, further reinforcing the commitment to equity in health outcomes.

Additionally, EGA is developing wearable safety technology for workers. It monitors and reports, in real-time, body temperature, heart rate, and sweating rate. This groundbreaking device allows employees and the safety team to detect early indications of heat-related illness even before it can be felt by the individual. Currently undergoing trials and improvement, the gadget is expected to elevate safety standards across the city.

WakeCap Technologies Monitors Workers

Hassan AlBalawi founded WakeCap, which uses digitalized safety helmets that generate real-time field data to improve decision-making, operational efficiency, and visibility on projects. This also promotes a safe environment as individuals are monitored live, allowing supervisors to swiftly react to emergencies and mitigate potential risks. Since construction workers already wear helmets during work, they need not worry about lugging around additional hardware. This technological solution is practical, user-friendly, and easy to integrate into existing workflows. WakeCap ensures that every worker, regardless of their role or status, has access to the same level of safety and care.

Dubai Students Launch PotentiAI

Blue-collared workers, including industrial laborers, struggle to find job opportunities and advance in their careers. Three students in Dubai have developed PotentiAI, a website to enhance opportunities for such individuals. The innovative platform uses AI to help create and improve CVs and resumés that represent true skills and abilities. This increases the chances of securing better jobs and financial stability.

The website is easy to navigate with a simple user interface. This is useful given that only a few of these individuals are tech-savvy. It provides a space for users to input their professional history,

including experience, skills, interests, and goals and uses this data to develop a well-crafted resumé. It also offers financial literacy courses to educate and empower the target audience to make informed decisions, protect themselves from exploitation, and build a foundation for long-term security.

The young developers of PotentiAI have been collaborating with different ministries in the UAE, especially the Ministry of Artificial Intelligence, to officially register their initiative. Their goal is to broaden the platform's reach to benefit as many people as possible. In fact, to increase accessibility, they are working on an Arabic and Hindi website, as many blue-collar workers speak these languages.

Smart Labour Increases Possibilities

Abu Muadh launched Smart Labour for blue-collar workers' personal development. Smart Labour is a digital platform made to increase laborers' happiness, intelligence, and productivity. It provides educational content, teaches English, and offers a space to report feedback, suggestions, and incidents. Muadh recognizes that language barriers prevent this demographic from sharing their great ideas and suggestions that emerge through their on-site experiences. Smart Labour fosters personal development and bridges language barriers through its educational and inclusive content, ensuring that all workers have access to the tools they need to advance their careers.

Labour Information Kiosks Educate Laborers

The Permanent Committee of Labour Affairs (PCLA) in Dubai has introduced labor information kiosks to educate laborers about their rights and enable them to communicate their problems to authorities. Some topics that are covered through this system include working hours, breaks, work permits, and residence visas. It also teaches this group of individuals about other laws and traditions in the nation so that they do not violate or offend anyone unintentionally. Training personnel assist users in learning how to operate the smart system, and incentives are put in place to motivate laborers to complete the program. PCLA's initiatives ensure that every worker, regardless of their literacy level or background, has access to information and support, promoting equity in knowledge and empowerment within the workplace.

Empowering Others to Prioritize Laborer's Well-Being and Opportunities

Although some of the above-mentioned technologies have already been implemented in other nations, Dubai's use of these products and services can be particularly inspiring to others because it is globally known for its cutting-edge infrastructure and commitment to innovation. To encourage others to adopt similar practices, Dubai must focus on international collaboration with governments, organizations, and industry stakeholders all over the world to share knowledge and facilitate capacity building. Collaborative workshops, conferences, training programs, and projects are great opportunities to exchange knowledge and generate ideas to improve laborer well-being and safety.

Moreover, by sharing success stories, outcomes, and lessons learned, Dubai can demonstrate the tangible benefits of investing in laborer welfare. To broadcast this information and mobilize support for collective action, the city can leverage social media, television, and other digital marketing spaces. These suggested forms of communication should be easy to implement as the city has access to resources and excels in them already. Dubai has the opportunity to catalyze a global movement that will create safe, healthy, and inclusive environments, especially for blue-collar workers.

Conclusion

Through its ambitious initiatives, Dubai is poised to transform the lives of its labor force and improve the quality of life for industrial workers. By implementing advanced technology solutions, such as the 'Beat the Heat' program, smart helmets, and AI career advancement platforms, people and organizations in Dubai not only address immediate challenges but also foster long-term, sustainable improvements. Workers are provided safer environments and opportunities for skill development, education, and career advancement, resulting in brighter and more equitable futures for all.

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