CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The current study is consistent with the prior findings for the Emission Trading System (ETS) that the ETS significantly encourages structural depreciation while mitigating carbon emissions. Estimates suggest that nearly every country in the sample - which represents a wide range of economic and industrial activity - has reduced its carbon emissions following the introduction of the ETS.

The statistically significant negative coefficient indicates that carbon emission declined in the down period, compared to the pre-period after the introduction of ETS law. Bayer & El Aklin (2020) showed that the EU ETS saved 10–15% CO2 emissions in the industrial and power sectors through sound market instruments. This is what they found out. Research in China found that the ETS decreased emissions 7–13% as well, and also made it cheaper for firms to comply (Zhang et al., 2020).

But for the first three years after the ETS went into effect, the lower carbon emissions didn't have much of an effect. This is happening because it takes time to change how things are created, buy low-carbon technologies, and respond to new market incentives. For now, companies were able to deal with emissions cutbacks that weren't ideal by employing the current mitigation methods or by saving up extra emission allowances. After the first era, it became clearer and more important how the changes will cut emissions, thanks to greater technology and stronger laws. This corroborates the findings of

Wang et al. (2015), which demonstrated that China's Emissions Trading System (ETS) significantly reduced emissions in energy-intensive sectors such as cement, steel, and power, while simultaneously yielding macroeconomic advantages through efficient carbon mitigation.

On the other hand, the adoption of the ETS had a major positive influence on the expansion of the industrial sector, as demonstrated by the industrial value added. The ETS fosters the use of green technologies, makes energy consumption more efficient, and encourages new ideas in business Dechezleprêtre et al. (2023), found that the EU ETS lowered emissions without affecting the economy.

In fact, it benefitted the economy by encouraging more income and profitable investment in low-carbon technologies. This plan gives companies in the industrial sector reasons to use less carbon, use energy more intelligently, and come up with innovative ways to do things. This will make the industry work and compete better. Dechezleprêtre et al. (2023) that the EU ETS was abating emissions without harming the economy. It even made people more likely to buy and use energy technologies that don’t emit carbon, such as solar panels or batteries that store electricity from renewable sources — and, by the way, also helped people make more profitable investments. This is a plan to invest in the development of new ideas and new technology that will prove less carbon-intensive and more efficient. All of this stuff is what’s going to help the industrial sector be more productive and be able to compete.

But it wasn't apparent how the ETS benefitted the economy in the first three years after it was put in place. The favorable effect didn't show up till Tp3

and Tp4, and it kept getting better after that. This means that even if the ETS policy did help the industrial sector flourish, the benefits didn't arrive right away because enterprises had to become used to the new rules and technologies. Porter & Van Der Linde (1995) contend that market-oriented environmental rules, exemplified by the ETS, may promote innovation and productivity while preserving industry competitiveness. These results support their claim.

These results suggest that ETS is an efficient way to develop policies for climate change mitigation, since it can reduce emissions gradually and still allow firms to operate. The policy might not produce an immediate impact on carbon emissions, or the economy, but if emissions limits are tighter, the infrastructure of markets is better and businesses adopt the right technology, there could be huge long-term benefits.

5.2 Recommendation

This analysis suggests the ETS system should be introduced slowly with strict emissions rules rolled out over time. This would help the industrial economy while also reducing carbon emissions. Companies need to know the approach will work, so they can be confident investing in low-carbon technologies over time. For the ETS to function, we have to develop the infrastructure of the carbon market, we have to make it more robust and open. This will go toward reducing pollution and expediting corporate operations. And they should have a tool provider which allows them to turn on the functions. In order to get them to use technology that is better for the environment we must put money into it, or give tax advantages.

The private sector's voice on policy will help the economy transition to a low-carbon model by ensuring policies are more effective and better meet businesses' needs. To better understand the functioning of the policy and to make policies that are more targeted at specific areas, we need to make an effort to better understand how ETS affects different industries. And to ensure that the ETS works without crippling the economy, rich countries or international institutions need to assist developing countries struggling with technology and infrastructure. The ETS has to do these things if it wants to reduce emissions and support the economy over the longer term.