

Title	バングラディッシュの養殖エビ産業における価値創造のためのバリューチェーン分析アプローチ
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### 論文の内容の要旨

Since 1990, industrial changes have been taken in the agro-food chains which changed the food industry process from firms to business. The result of globalization has brought the opportunities for the developing nations to offer their agro-food products to the global consumers. Exporting shrimp products from Bangladesh is such a global commodity that starting from pond to plate via a diverse chain. The standard chain and analysis of those chains unlock the value and ensure the value creation activities in the shrimp industries. Considering that business marketing has been paying attention to the creation of value. For creating value, value chain analysis (VCA) is a way of understanding the creation throughout a vertical configuration. The key to value creation in shrimp industries is value chain analysis, developing standard value chain, guidelines for rapid appraisals of shrimp products chain performance, value co-creation with the consumers, e-traceability for the quality and safety, knowledge creation in shrimp industries, well marketing strategy with the consumer segment and others. Many studies identified that unlocking value through analysis, tracing the product information through technology, managing knowledge for both stakeholders and firm people; inviting farmers and consumers in the production process and applying modern technologies convert the challenges into opportunities in the shrimp industries.

For the present study, we have empirically examined the value chain of shrimp industries with the help of Porter (1985) value chain and focused how the value chain activities facilitate the value creation through the analysis of the chain actors. We have conceptualized the e-traceability for the value creation activities in shrimp industries. We have also empirically examined the knowledge creation activities in the shrimp industry and utilized Nonaka and Takeuchi (1995)'s SECI model for mapping out the FIQC activities. For examining and exploring the value chain and knowledge creation activities, we have

conducted two interviews with the shrimp processing plants and FIQC people. The methodology employed was a combination of qualitative and quantitative approaches.

The study found that poor transportation, communication gap between the stakeholders, shortage of raw shrimps, manual processing of shrimp products, less variety of value added products and lack of quality standard are the areas where shrimp industries were suffering. It was found from the study that some of the primary and secondary activities of shrimp industries did not mapping with the Porter's framework. Based on Porter's framework, the study suggested that by analyzing and synthesizing those gaps can lead the firm to offer more value and competitive advantages. In the knowledge creation activities, results show that the Bangladeshi FIQC officers are actively involved in facilitating knowledge creation and sharing initiatives with the farmers and firms people. By doing their daily visits to processing plants, discussion with the colleagues, informal discussion, maintaining meeting memo, formulating national policy and storing all information in the databases they are continuously creating knowledge for the shrimp industry.

FIQC officer works as intermediaries between the farmers and firm people in terms of providing shrimp production, certification and others export oriented support. For the traceability area, shrimp industries in Bangladesh do not have any e-traceability system. Considering the technology and process, industry people have lack of clear knowledge as how to apply e-traceability in the industry. For the present study, we have conceptualized one framework of e-traceability for the value creation in shrimp industries. By offering e-traceability, Bangladeshi shrimp industry will gain the consumers and buyers trust.

Finally, we have come up with a framework where we have focused how the value chain, knowledge creation and e-traceability facilitate to value creation in the shrimp industries of Bangladesh. We found that analyzing the chain with the primary and supporting activities, conceptualizing the e-traceability system and creating new knowledge leads to offer more value creation in shrimp industries. The new value can be in the form of opening new market, gaining competitive advantages, consumer satisfaction, increasing exports and more profits in the industry. Lastly, we discussed the limitations and put some directions for the future works of this study. While there has been a very few studies on value creation of the shrimp industries in Bangladesh, the result of the present study will support to unlock the gap and offer new strategies for value creation. Apart from value creation, stakeholders, firm people, and other patrons of shrimp industries in Bangladesh will be made aware of the effect of value chain, knowledge creation and e-traceability. This study will bring many unattended topics of shrimp industries to open a debate and academicians/researcher/firm people will come forward to work on it.

## Keywords

Value chain analysis (VCA), shrimp industry, knowledge creation, e-traceability, FIQC.

## 論文審査の結果の要旨

本研究はバングラディッシュにおけるエビ養殖産業の現状を調査したうえで、国際競争力を向上するうえで強化が必要な産業上の要因を分析し、その結果をもとにモデル化を試みたものである。近年、養殖エビへの需要が急速に高まっているなかで、中国・東南アジアの多数の国が市場での競争力を強化しつつある。バングラディッシュにおける輸出産業構成においてはエビ養殖産業が果たす役割は、きわめて高く、外貨獲得の手段としても重要な役割を担っている。したがって、バングラディッシュにおいては養殖エビの国際競争力を高め、それを維持することが、喫緊の課題となっている。

本論文では、最初に、食の安心・安全、環境保護、産業インフラの整備など、エビ養殖産業に関連する諸問題を視野に入れながら、現状の養殖エビ産業の問題点について質問紙調査を行い43社から得た回答の分析結果について論じている。調査結果は、経営者の多くはVCAに関する十分な知識を持っており、冷蔵輸送力・電力の量と質、資金力などの競争力の阻害要因を認識しており、その改善のための価値創造への意欲が十分にあることが明らかになった。

この結果を踏まえ、バリューチェーン分析の基礎を確立するうえで重要な役割を担い、養殖エビの品質と安全性を向上させるうるe-traceabilityの現状と産業基盤として整備することの必要性を論じている。さらに、養殖エビの生産性・品質・安全を向上させるうえで、エビ養殖に関する知識が現場でいかに共有され、創造されているかを調査することを目的として、養殖エビ産業を所管する国家機関(FIQC)の職員を対象として質問紙調査を実施し、その結果をSECIモデルに基づいて価値創造の観点から分析している。その結果、知識の共同化・表出化はFIQCが主導して進められているが、内面化と体系化が十分に行われていない現状が明らかになっている。

以上を総括して、本論文では、バングラディッシュの養殖エビ産業の現状の問題点を調査結果に基づいて明らかにしたうえで、e-traceabilityにより得られるデータを共有し、ステークホルダーがVCAの知見を共有し、知識創造活動を活性化するモデルを提示している。

本論文で提示されたモデルは既存の理論を本研究の対象に対して適用し統合したモデルに過ぎないが、バングラディッシュのエビ養殖業に関する調査データに基づいて、現状の課題を知識創造プロセスと結びつけた分析結果を示すことで、その課題を克服するための方向性を提示している点で学術的に貢献するところが大きい。よって博士(知識科学)の学位論文として十分価値あるものと認めた。