SUMMARY

R. RUDY IRAWAN. Business Model Tin Mining Industry Indonesia (Case Study District Bangka Belitung). Supervised by UJANG SUMARWAN, BUDI SUHARJO dan SETIADI DJOHAR.

Indonesia has abundance of natural resources such as oil, gas and minerals. One of the abundant natural resources is tin ores. Bangka Belitung province as one of provinces has the mineral abundance and has been mining since 1668. However, the tin mining industry have the various problems faced by the province of Bangka Belitung. The problem mining industry were being the competition tin mineral land use and degradation from mining activities, illegal tin mining, the lack of coordination between local governments and the central government in the regulation and licensing of tin mining, social and economic conflict, the problem of poverty, structural and political problems procurement of mine. All of those problems need to be resolved.

The aim of our study was to make business model of tin mining industry (case study Bangka Belitung Province) by approaching stakeholder management. The business model can be used as a solution to manage conflicts among stakeholders, economic improvement, increasing regional revenues, and tin industries sustainable competitiveness. The methodology of research conducted by in-depth interviews and questionnaires. Expert respondents selected by purposive sampling. Respondents were selected by non-probability sampling technique. Then, this research used stakeholder analysis and analysis of Analytical Network Process (ANP) to make the business model of the tin mining industry. Stakeholder analysis conducted to map the level of interest and the level of power of each stakeholder.

The results of the stakeholder analysis begun with the identification and mapping of stakeholders in the tin mining industry in Bangka Belitung. Mapping stakeholders according to the stakeholders’ level of interest and the level of power. Based on the stakeholder analysis of tin expert respondents obtained central government, local governments and producers and investors included in quadrant IV with the level of interest (4) and level of power (4) while the traders, the community, the small scale mining (TI) & supplier, and law enforcement agencies in the quadrant II with the level of interest (4) and level of power (3). The results of the stakeholder analysis sought tin reconciliation and business model using ANP analysis tools. Consensus of the expert respondents agreed that tin reconciliation and business model should be built in the same common ground interest of tin.

ANP framework model confirmed by tin experts consist of seven linked clusters. The ANP framework explain the linked relationship consists of clusters; (a) the strategic environment, (b) the key stakeholders, (c) the main activities, (d) tin issues, (e) strategies of tin mining industry, (f) the value proposition and (h) business model. Based on the cluster priority sequence results obtained as follow; key stakeholders (22.69%), the main activities (21.51%), value proposition (20.17%), tin issues (16.80%), tin strategy (15.46%) and macro-environment (3.36%) with value of CR (consistency ratio) ≤ 0.1 for all clusters.
Analysis of ANP cluster macro-environment played important role were a) politics and law (28.91%), b) economics and business (28.91%), and c) social, cultural and leadership (19.25%) with Kendall’s coefficient of concordance (W) by 80%. Results of ANP cluster analysis of key stakeholder priorities were a) local government (26.67%), b) central government (24.51%) and c) law enforcement agencies (15.99%) with W by 61%. The results of cluster analysis ANP of main activities are the regulation and licensing (38.85%) as well as monitoring and enforcement (35.23%) with (W) by 52%. The results of cluster analysis ANP of tin issues that need to be resolved immediately were a) weak of supervision and enforcement (21.67%) as well as weak of policy and central coordination and regional (21.08%) with W values by 53%. ANP cluster of strategies in priority order: (a) audit and supervision of the tin mining industries strategy (31.05%), (b) standardization of the tin mining industry strategy (22.19%), (c) trade system of tin strategy (17.37%), (d) the establishment of tin institutional strategy (14.73%), and (e) downstream tin mining industries strategy (14.67%) with expert level agreement (W) 21%. The low level of agreement showed the need of mixed strategy in the tin mining industries. The results of ANP analysis cluster proposition value with the sequence of priority: (a) tin sustainability (40.39%), (b) the welfare and fairness (32.54%), and competitiveness (27.06%) with a value of W 36%. All of the cluster analysis obtained CR value ≤ 0.1.

The ANP results were used to make the business model of the tin mining industry. The business model is formed by three precondition: 1) the macro-environment consists of a cluster of political will and the law which clear and unequivocal, stable economy and business as well as social, cultural, and strong leadership and harmonious, 2) Stakeholder cluster consists of regional government, the central government and law enforcement agencies need to integrally coordinate and 3) Main activities cluster consists of regulation and licensing, monitoring and enforcement need to be addressed linked to the effectiveness and performance. The precondition needed for the business model running well. The business model is formed from operating process tin mining. In the mining process there are only private enterprises, state enterprises (BUMN), local enterprises (BUMD)/cooperatives and small scale miner (TI). TI should be under the coordination of BUMN/BUMD or cooperative while the private miners could mine directly with the clusters mining area for the businesses actors. Then the processing can be done in a BUMN/BUMD’s smelter or private smelters. The products can be in the form of tin ingots, and semi-finished product with predefined standardization or others. Finished products can be sold directly to users while semi-finished tin products should be sold through INATIN- BKDI afterward sold to users.

The business model created a mixed strategy from cluster strategy. Mixed strategy consists of 1) the audit and supervision of tin mining industry strategy with an integrated, cross-sectorial and coordinated by authorized or designated agencies, 2) standardization strategy with tin mining clusters areas and standard of semi-finished product (tin solder or other form), 3) strategies of trade system through the INATIN and raise royalty fees, 4) establishment of institutional strategy by forming INATIN-BKDI and BUMD/cooperatives and 5) Downstream
strategy needs to be supported with adequate infrastructure preparation and increasing royalties fees to support tin downstream.

The implementation of the business model will be improve the performance of the tin mining industry in Bangka Belitung. Improvement the tin mining industry qualitative as follow 1) The regulation of small scale miner under BUMN/BUMD/ cooperatives will be a) more coordinated small scale miner, responsibility for taxes, reclamation and there are responsible agencies, b) tin ore production can be controlled so that the price formed will be higher, c) reducing environmental damage. 2) Selected mining areas of BUMN and BUMD or cooperatives easier to the supervision and entrepreneurs to compete in fairly. 3) Increasing of royalty fees provide regional revenue and pushed downstream areas. 4) Selling through INATIN and tin standardization prevent manipulation committed by industry for not paying royalties, taxes and eliminate the origin of tin ores. 5) Downstream can be increased value add and multiplier effects, 6) Increasing of audit and control obtain the legal certainty.

The results of this study have managerial implications as follow 1) regulator need to notice suggestions or interests of business actors to avoid conflict, 2) the government needs to create a stable political and political will to set the law be clear and unequivocal, 3) the government needs to encourage a clear and coordinated regulation, supervision, stricter enforcement and maintain the integrity of employees, 4) presence of regulator/law enforcement actor which involving tin mining along thus the government needs to restructure bureaucracy and internal controls needs to be improved, 5) tin standardization strategy for semi-finished product tin implicates the government needs to make SNI/ISO, 6) regional clusters strategy of mining implicates the government needs to revise the government Regulation No. 22 year of 2010 about mining area, 7) trade system strategy for semi-finished product tin implicates government need to revise the Trade No. 32/M-DAG/PER/6/2013 about on export tin, 8) increasing of tin ingot royalty fees strategy implicates the government needs to issue regulation related of royalty fees, 9) downstream strategy implicates the government should immediately preparing infrastructure such as roads, ports, electricity, water and telecommunication in Bangka Belitung, 10) audit and control strategies have implications on the government need to set the amount, quality, and improve the integrity of law enforcement officers, and 11) the establishment of an institutional strategy of BUMD or cooperatives implicates government need to prepare legal instruments and adequate capital for the institutions.

Our research suggested in this study as follow 1) need to analyze sectorial stakeholder as the central government such as the Ministry of Energy (ESDM), Ministry of Commerce, etc., 2) need to analyze the effect of supervision and enforcement level of the existing businesses, 3) need to analyze and contestation actors and link actor in Bangka Belitung, 4) need to assess the effectiveness of the existing regulation, licensing and supervision in the tin mining industry, also need to assess economic-politic situation in the tin mining industry.

Keywords: Business model, Tin Mining Industry, Stakeholder Analysis, Analytical Network Process