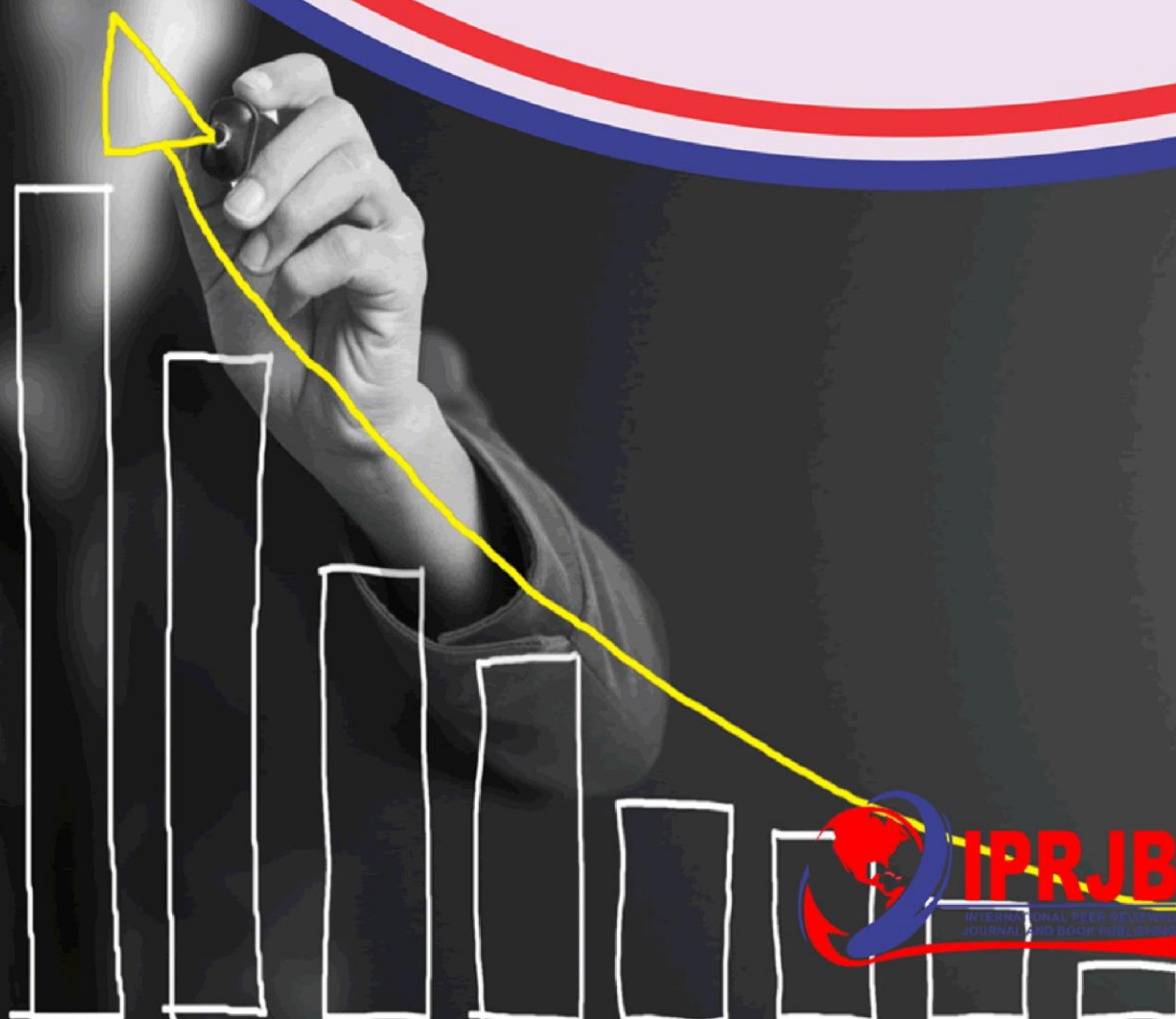


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**CONTRIBUTION OF INDUSTRIAL ALL RISKS INSURANCE TO
THE GROWTH OF MANUFACTURING FIRMS IN KENYA**

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CONTRIBUTION OF INDUSTRIAL ALL RISKS INSURANCE TO THE GROWTH OF MANUFACTURING FIRMS IN KENYA

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Abstract

Purpose: Manufacturing firms are key to successful economic development, since they help generate virtuous and cumulative linkages with other sectors of the economy, drive technological progress, and have the strongest potential for productivity gains. But, significant as they are, manufacturers face varied exposures with customers, employees, and operations. Innovation, from new technologies to expanding markets, can introduce opportunity but also potential vulnerabilities. The purpose of this work is to enhance the reader's understanding on the various contributions of Industrial all risks insurance to the growth of manufacturing firms in Kenya.

Methodology: A desktop literature review was used for this purpose. Relevant journal articles for the study were identified using search engines such as Google Scholar, Google Books, Semantic Scholar, Science.gov and Research Gate. Studies done between 2015 and 2022 were considered.

Findings: From the findings, researchers have shown that subscribing to individual insurance covers can be expensive and might leave insurance gaps. The findings suggest that subscribing to all risk insurance policies has a direct impact on the growth and expansion of the firms in the manufacturing sector.

Unique Contribution to Theory, Practice and Policy: The study recommends that all manufacturing firms in Kenya should seek Industrial all risks insurance coverage as it provides protection against all potential incidents that can result in massive losses. Manufacturing firms should also seek Industrial all risks insurance coverage as an effort to restrict the loss to their balance sheets, and in that sense, help them to stay solvent.

Keywords: *Contribution, Industrial all risks insurance, Growth, Manufacturing Firms*

INTRODUCTION

Manufacturing comes with risks that threaten the success of the business if owners don't properly manage them (Ho, Zheng, Yildiz, & Talluri, 2019). When determining what types and levels of manufacturing insurance coverage is needed, the directors must remain aware of these risks that could cause a financial burden to their business. A textile mill and an automotive manufacturer may seem to have little in common, yet nearly all manufacturing businesses share a few common risks. The manufacturing landscape has become increasingly globalized as a result of digitization and the adoption of a more customer-centric mindset (Manuj & Mentzer, 2018). Although this rapid digital transformation has helped manufacturers capture new cost efficiencies and pass value throughout the supply chain, it has also heightened risks related to geopolitical tensions, sustainability and climate resilience, cyber-security weaknesses, environmental, social, and governance concerns, and supply chain chokepoints (Rao, Kashani & Marie, 2019). For manufacturing companies, creating a comprehensive risk management program can help with effectively leveraging technology for productivity, while also safeguarding people and property from adverse events, such as bodily injury, damages, or other business interruptions.

Industrial all risks (IAR) is a comprehensive insurance policy that covers against all risks of accidental, physical loss or damage to insured property situated within the premises other than from excluded causes (Musundire & Aigbavboa, 2018). Loss of profit of other insured interest resulting from an interruption or interference to the business following loss destruction or damage to any building or property insured under the material damage section of the policy. The policy is suitable for large establishments and once taken, there will be no need of taking out individual insurance policies such as fire and fire consequential loss policies as well as burglary. This policy is however subject to a higher deductible than the individual policies.

Manuj and Mentzer (2018) claim that purchasing industrial all hazards insurance is not mandatory for manufacturing companies. However, it is strongly advised so that manufacturers may better shield their companies from hazards, some of which could be disastrous. It is crucial to balance the costs of industrial all risks against potential losses and collateral damage that can occur in the absence of an insurance policy (Chen, 2016). For example, individual cargo insurance may not be sufficient to protect cargo while it is in route. For instance, even if the manufacturer is successful in demonstrating that an ocean carrier is legally responsible, the carrier's maximum liability is \$500 USD per standard shipment unit or the actual worth of the products, whichever is less (Hansen, Jacobsen & Lau, 2016). Additionally, the maximum liability for air freight carriers is \$24 per kilogram. The majority of freight, however, is worth significantly more than these rates. Therefore, producers risk losing a significant portion of the value of their cargo if they don't have the right industrial all hazards insurance (Ani, He & Tiwari, 2017).

LITERATURE REVIEW

Industrial all risks insurance, according to Lee and Chiu (2016), can protect manufacturers for cargo in transit. This is due to the fact that it includes all types of transportation in a single trip. In general, more than one mode of transportation may be used to transport a consignment during a single voyage. Industrial all hazards insurance also provides coverage for cargo imports and exports from other countries to the country of the manufacturer. Fire, acts of God, strikes, maritime

accidents, inadequate packing, and other typical causes of damage fall outside of a carrier's scope of responsibility. Additionally, there are numerous businesses that manage manufacturer's freight during storage and transportation. This can make it challenging to pinpoint the exact location of damage or establish who is responsible for it. Manufacturers are protected from these losses by an industrial all hazards insurance policy and are not required to establish liability. Industrial all hazards insurance covers losses incurred during air or ocean freight during international trade, helping manufacturing companies expand. Industrial all risks insurance provides producers with security for their cargo when it is being transported by road or rail, according to a related study conducted in Tanzania by Mandari (2021). Increasingly sophisticated cargo theft techniques target trucking companies that manufacturers can use to move manufacturing equipment or manufactured goods. Robbers can steal important cargo by impersonating as reliable motor transporters. In this context, industrial all risks insurance helps manufacturing companies thrive by providing protection for items or machinery that are moved by road or rail. More so, Industrial all risks insurance experts understand the latest scams and can also help manufacturing firms to prevent theft against cargo transporters.

According to a study conducted in Morocco by Alhassan (2016), manufacturing companies can settle worker injury claims with the aid of industrial all risks insurance. Even if formal safety policies and programs are designed, followed, and enhanced, manufacturers may still endure workplace accidents and injuries. It is crucial to assist in minimizing the detrimental effects on both personnel and business. A manufacturing company's Industrial All Risks Insurance is a useful solution to help safeguard the manufacturer's own financial security by protecting workers in the case of an unintentional occupational loss. Industrial all risks insurance is typically meant to offer flexible policy limits or to assist firms in protecting their self-insured retention level against significant losses due to occupational accidents. According to a study conducted in Morocco by Alhassan (2016), manufacturing companies can settle worker injury claims with the aid of industrial all risks insurance. Even if formal safety policies and programs are designed, followed, and enhanced, manufacturers may still endure workplace accidents and injuries. It is crucial to assist in minimizing the detrimental effects on both personnel and business. A manufacturing company's Industrial All Risks Insurance is a useful solution to help safeguard the manufacturer's own financial security by protecting workers in the case of an unintentional occupational loss. Industrial all risks insurance is typically meant to offer flexible policy limits or to assist firms in protecting their self-insured retention level against significant losses due to occupational accidents.

According to Ayuba, Bambale, Ibrahim, and Sulaiman (2019), a manufacturer's machinery is its lifeblood, and when a breakdown happens, the consequences might be disastrous. This is especially clear if clients must wait for their purchases and there is no access to other machines. When equipment breaks down, job orders are lost, deliveries are delayed, revenue ceases, and the cost of carrying on with business increases, which has an impact on a manufacturer's bottom line. Breakdowns and equipment outages are typically not covered by normal commercial insurance policies. The expense of replacing or repairing damaged equipment and paying the manufacturer for lost time should be covered by industrial all hazards insurance, which can be quite useful. In a similar vein, Inkumsah, Abdul-Hamid, and Angenu (2021) suggested that manufacturing companies require safe and functional equipment in order to run effectively and create income. According to Ferrández-Muiz, Montes-Peón, and Vázquez-Ordás (2019), many events that cause

a failure are outside a manufacturer's control. In fact, some firms depend solely on a few pieces of equipment to run their entire operation. Major losses could result from a breakdown, prompting many manufacturers to purchase commercial property insurance. It's crucial to realize that commercial property insurance might not provide coverage for mechanical failures. Contrarily, industrial all risks insurance protects all equipment against damage caused by accidents, malfunctions, and other occurrences that are normally not covered by commercial property insurance. Industrial all risks insurance steps in to fill in these gaps. Having this coverage is critical due to the technological advances inherent in today's electronics, which have increased the complexity of equipment (Inkumsah et al., 2021).

In the United States, Batool and Sahi (2019) shown the value of industrial all risks insurance in protecting producers against automobile accidents. Despite the manufacturer's best efforts to adopt safe driving programs, auto accidents resulting in property damage or serious injuries to others may still happen if the manufacturer has a fleet that delivers goods to distribution centers or retailers. If company vehicles are going to be used, they should be adequately insured to shield firms from liability in the event of an accident. Businesses need at the very least cover third-party liability, but comprehensive insurance will also protect that vehicle in the event of an accident. Additionally, manufacturer-owned cars, as well as leased or hired cars, are all covered by industrial all hazards insurance policies. Coverage can be expanded to cover additional automobiles driven for work-related purposes by manufacturer employees in addition to company-owned vehicles. Similarly, Chen (2016) noted that in Singapore, Industrial All Risks Insurance reduces the complex individual motor vehicle insurance arrangements for motor vehicle insurance. Collision, comprehensive, and specified hazards are the three categories of physical damage insurance for automobiles. Losses due to the overturning or collision of a covered vehicle with any object are covered under collision coverage (Batool & Sahi, 2019). The most comprehensive type of auto physical damage insurance covers losses from all causes, with the exception of collision and overturn, as well as a few policy exclusions including normal wear and tear, mechanical failure, and acts of terrorism. Flood, fire, theft, glass breakage, falling items, explosions, earthquakes, and collisions with wild birds or animals are some of the loss scenarios covered by comprehensive insurance. Many of the same risks are covered by specified perils coverage, which is less expensive because it only covers the perils that are specifically mentioned in the policy. Industrial all hazards insurance products provide manufacturers with piece of mind because they cover all potential risks associated with conducting business (Chen, 2016).

Spekkers, Ten Veldhuis, and Clemens' (2019) additional research in the Netherlands indicates that industrial all risks insurance policies shield manufacturing companies against product responsibility. Customers expect trustworthy products, and not providing those products might result in significant financial losses. End users may be at risk from omitted design faults, manufacturing errors, and gaps in warnings and instructions. Customers or other stakeholders who are harmed by one of the company's products may file a lawsuit against the manufacturer, incurring high legal costs and potentially sizable settlements. Despite manufacturers' best efforts to make sure their products are safe, accidents can nevertheless happen suddenly. Not all product liability policies assist manufacturing companies in recovering the costs of a comprehensive compensation, it should be highlighted. Therefore, in order to ensure that there are no insurance coverage gaps, producers should buy an Industrial all hazards insurance policy. According to a study by Hwang

and Kao (2018), insufficient insurance protection could result in potentially catastrophic financial losses that manufacturing companies would have to cover on their own. An industrial all hazards insurance policy can ensure that a manufacturing firm is completely insured at a cost that is generally less expensive than the cost of purchasing all separate insurance covers. This lowers a manufacturing company's operational costs, increasing their profitability.

According to Rao, Kashani, and Marie (2019), manufacturing companies benefit tremendously from having an industrial all risks insurance coverage in the case of supply chain disruptions. To remain competitive and lower the price of their goods and services in today's globally connected business climate, more companies are turning to supplies and labor from other countries. Regardless of sector or size, this tendency has had a tremendously favorable impact on the overall effectiveness and profitability of many businesses. However, it has also resulted in a huge rise in the number of elements that could seriously disrupt the supply chain (Finch, 2020). In fact, as a result of the economy's growing globalization and the unpredictability of the geopolitical environment, global supply-chain risk events increased by 36% in 2018. (Ho, Zheng, Yildiz & Talluri, 2019). Natural catastrophes, transportation issues, geopolitical unrest, price increases, and cyberattacks are the top five causes of supply-chain disruptions (Tang, 2016). According to Ho et al. (2019), a corporation may not fully recover from a supply-chain breakdown for years, and the financial ramifications could be astonishing. Businesses now more than ever need to build efficient risk management systems to deal with supply-chain disruptions due to the rise in potentially disruptive occurrences and the increasing cost. It's critical to realize that managing supply-chain risk is challenging in large part due to the complexity of the risk variables and occurrences. For instance, many businesses may feel they just need to secure the top tier of suppliers even when they actually have numerous tiers of suppliers. Dependence on the supply chain may result in unfavorable events beyond the control of industrial companies (Manuj & Mentzer, 2018). A manufacturing company may lose income and earnings if the production line is stopped as a result of a supplier's failure to provide materials or parts. An industrial all risks insurance coverage can assist the manufacturer in managing expenses until continuity is restored and operations can resume at pre-disruption levels if the risk to the manufacturer's supply chain is there (Rao et al., 2019).

Hansen, Jacobsen, and Lau (2016) conducted study in Denmark and found that an industrial all risks insurance coverage could assist the manufacturer in handling product recalls. It can be costly and time-consuming to recall goods that have been introduced onto the market that are faulty or contaminated. A product recall entails a number of expenses, such as delivery, storage, disposal, and restocking fees. On the other hand, recalls can assist in preventing litigation brought by consumers who have been harmed, which can be expensive to defend and can harm a manufacturer's reputation and brand (Barrese, Doerpinghaus & Nelson, 2017). The likelihood of product recalls has increased over time as a result of stricter worldwide regulatory guidelines and safety standards. Although beneficial to customers, stricter product quality regulations provide challenges for manufacturers. The problem is worse now than it has ever been because supply chains are geographically dispersed and manufacturing methods and standards vary among different regions (Chao, Iravani & Savaskan, 2019). Due to the proliferation of international regulatory standards and the nearly continual introduction of new product safety regulations, the likelihood of a product recall has significantly grown in recent years. Smaller manufacturers

cannot afford the debilitating costs associated with a product recall, even if many major organizations have the means to deal with its effects. An industrial all risks insurance coverage can assist small and medium firms in this situation by helping them to manage the costs connected with product recalls (Hansen et al., 2016). An industrial all risks insurance policy protection can help to cover costs incurred to remove products from the market and to transport, store, examine, and dispose of them instead of a manufacturer having product recall insurance added to a general liability policy. With the repercussions, paying product liability claims, and replacing all the contaminated products, this will prevent manufacturers from being quickly thrown into bankruptcy (Hansen et al., 2016).

An Australian study conducted in 2017 by Suriadi, Wynn, Ouyang, Hofstede, and Dijk suggested manufacturing companies implement all-risk industrial insurance. This is due to the fact that the majority of manufacturing companies are implementing technology to streamline production, advance R&D, and automate procedures like supply chain management, warehousing, and resource planning. However, as more manufacturers go online, so increase the hazards to their businesses. Manufacturers are becoming more and more prized targets for financially motivated cyberattacks like ransomware and extortion, or to disrupt business and steal trade secrets. Malware and ransomware assaults can penetrate even the most secure networks. Hackers can still get access to manufacturers' systems despite measures to protect confidential information and customer data, disrupting business operations and resulting in financial costs (Thakur, Qiu, Gai & Ali, 2017). Suriadi et al. (2017) claim that cyberattacks are getting more frequent and sophisticated across all industries, and the manufacturing sector is no exception. The majority of industrial companies don't consider themselves to be a problem in the cyber realm. Manufacturing businesses don't necessarily experience the typical cyberattacks that make the news. The cyber risk for mid-sized manufacturing businesses is mainly about losing crucial data due to data corruption or cyber extortion, as well as losing private customer and staff data, like billing and payroll files (Lamba, Singh, Dutta & Rela, 2016). According to Thakur et al. (2017), every business that uses technology and the Internet should take precautions to evaluate their vulnerability to cyberattacks and data loss, and then develop reaction mechanisms to reduce the effects of such an assault. Lack of protection may come at a great cost. The manufacturers' bottom line may be significantly impacted by data loss, network system replacement, company interruption, defense costs, lawsuits, victim theft monitoring, and reputational harm. In response to cyber-attacks, the insurance industry is attempting to outlaw cyber coverage under commercial general liability plans. Manufacturing companies which purchase an Industrial All Risks Insurance Policy are covered for both first party and third party risks. Other benefits that come with an Industrial all risks insurance policy include reimbursement for security audits, post-incident public relations and expenses that stem from the investigation of a breach or attack (Suriadi et al., 2017).

According to a related study by Houghton (2021) in Jamaica, manufacturing companies are extremely vulnerable to cyberattacks since there may be a significant incentive for cybercriminals to target manufacturers in exchange for a ransom. The entire operation stops once the factory floor closes. Manufacturers are faced with the issue of securely integrating older legacy systems as robotics, artificial intelligence, and innovative production techniques become more prevalent. Complex manufacturing systems are tempting to thieves who can utilize the time of the outage to demand bigger ransoms because they can be difficult to recover. For instance, in 2014 hackers

overheated the blast furnace of a German steel company, causing millions of dollars' worth of property damage (Schallbruch, & Skierka, 2018). Cyberattacks that block access to operating systems and prevent access to company orders, product designs, or production equipment can also have an impact on manufacturing businesses. This occurred in 2017, when Russian hackers launched the NotPetya attack on Ukrainian computer systems, which had severe impact on businesses across many industries, including manufacturing. Due to hackers locking computers that controlled industrial equipment, shipping manifests, and financial data, businesses involved lost millions as a result of company activities being disrupted by a cyber-peril (Ani, He & Tiwari, 2017). Since hackers are aware that smaller businesses frequently use obsolete software and do not invest in cutting-edge network protection, even smaller manufacturers face cyber dangers (Schallbruch et al., 2018). If a company does not have cyber liability insurance in place, these situations may lead to coverage overlap with property insurance. This is especially true in a current legal dispute between Mondelez, one of the organizations impacted by the NotPetya assault, and its property insurance provider, Zurich, over the latter's denial of a \$100 million claim for Mondelez's damaged computers and servers (Lika, Murugiah, Brohi & Ramasamy, 2018). Zurich maintains that NotPetya was an exclusion in the policy even though Mondelez has coverage for the computers and servers in its property policy. Mondelez might have been completely protected and compensated with an Industrial All Risks Insurance Policy.

An industrial all risks insurance policy, according to a retrospective study by Ikegami (2017) conducted in Japan, may aid manufacturing companies in reducing financial damage to third parties. If a manufacturing company supplies components to another manufacturer, a production mistake that renders a component inoperative could result in a loss of revenue for that third party (Truong & Hara, 2018). Manufacturer's professional liability can be covered by an industrial all risks insurance policy for any professional services that may result in financial loss to a third party (Ikegami, 2017).

An industrial all hazards insurance policy can help to cover difficulties ranging from main product manufacturing to components sales in the manufacturing industry (Lamba, Singh, Dutta & Rela, 2016). Multimedia, marketing, and advertising, as well as privacy liability, and data security, are some common facets of manufacturers' professional liability. Pollution liability is one of the additional aspects of manufacturing liability. In other words, rather than the physical goods and assets of the company, professional responsibility often covers the intangible parts of manufacturing. Typically, errors in advise, forecasts, and knowledge will be included. An industrial all risks insurance coverage will cover the cost of the manufacturer's legal defense should a client, customer, or other party make a claim against the manufacturer's professional services (Han, Zheng & Xu, 2017). When a customer asserts a claim of product liability, this occurs frequently in the manufacturing industry. The manufacturer may be held accountable if the product it produced results in property damage or personal injury. An industrial all risks insurance will protect the maker but professional liability insurance will not (Lamba et al., 2016). Should the manufacturer need to defend himself in court, this can be very helpful. Additionally, the insurance coverage will assist in paying any necessary recompense for the client or third party. If a client's action against the manufacturer is successful, they will receive this compensation. Furthermore, the client will also be compensated for the money that they have lost as a result of manufacturer's advice or mistakes if they win the case (Spekkers, Ten Veldhuis, Kok & Clemens, 2019).

According to a 2019 study by Fossel, Chapin Keller, and Katz conducted in India, employment practices claims can be effectively handled by an industrial all risks insurance policy. It is not always simple to predict what might lead to an employment dispute. An employment practices liability claim against a manufacturing firm may be made if an employee feels harassed or discriminated against. Physical harm brought on by inadequate safety measures in a manufacturing company might result in significant financial losses (Singh & Kumar, 2017). Smaller industrial companies frequently purchase what is known as a Business Owner's Policy, which combines commercial property insurance and general liability insurance into one practical package (BOP). Additionally, manufacturers should buy workers' compensation insurance, which will pay for any claims for employee injuries resulting from accidents at manufacturing facilities. Many manufacturers believe that claims for harassment or discrimination are also covered by general liability policies since they frequently cover third-party injuries and property damage (Manuj, & Mentzer, 2018). But with a conventional, fundamental general liability policy, that's nearly never the case. Manufacturers can get specific financial support and cover the expense of legal defense with the aid of an industrial all hazards insurance policy (Fossel, Chapinm Keller& Katz, 2019).

According to a report by Adams, Andersson, Jia, and Lindmark (2017) in Sweden, manufacturers benefit from having an industrial all risks insurance coverage when it comes to handling environmental incidents. Every manufacturer needs to be mindful of their exposure to the environment and the consequences of pollution exclusions. The coverage for pollution under a typical general liability and property policy is minimal, if any. So, a pollution mitigation plan that includes insurance coverage needs to be a top priority, regardless of the size of the industrial facility, whether it is a small operator or a large one (Chang, Huang & Wang, 2018).. Manufacturing companies have specific difficulties due to the handling of fuel or the disposal of hazardous waste in plants. Unexpected leaks or spills may incur high cleanup expenses and incur penalties from local, state, and federal authorities. The producer must also cover the cost of medical care for any employees who come into contact with the dangerous material (Feng, Mol, He, & Van Koppen, 2016). The only way to be insured in the event of a chemical spill or any other pollution issue is to get a policy expressly for this since pollution problems are not covered by a typical commercial property insurance policy (Lamba, Singh, Dutta & Rela, 2016). The proprietors of a company should have this coverage if it uses hazardous ingredients to make its products. An industrial all risks insurance policy can assist cover liabilities that environmental liability insurance may not address in place of a manufacturer having environmental liability insurance. In the event that pollutants are unintentionally released, these procedures help reduce financial losses (Andersson, Jia & Lindmark, 2017).

An industrial all risks insurance coverage can assist manufacturers in covering professional responsibility, according to study by Hanson (2020) conducted in Canada. Professional liability insurance is expressly required by certain industries, such as law and accounting. Many industrial companies are unaware of the possibility of requiring professional liability insurance. Professional responsibility refers to the ability of an organization to pay the expense of attorneys' fees in the event that clients or consumers assert that it offered subpar services, bad advice, or incorrect expertise (Motta, Testa, Cesari, Quaremba, & Motta, 2015). The appropriate compensation that the experts might have to give the client for the claim they have made against them is also covered by the insurance. Directors and officials of privately held corporations may be the subject of

litigation coming from a variety of sources (Silver & Syverud, 2015). Wrongful acts can be time-consuming and expensive to defend, whether they are actual or suspected. When claims are made, an industrial all risks insurance coverage can assist in covering defense expenses as well as damages including awards and settlements. A third party's financial loss resulting from a fault in the product's design or specifications can be covered by an industrial all hazards insurance policy. If a client requests financial loss reparations, such as lost wages, this policy supplements general liability coverage (Hanson, 2020).

Last but not least, Darko and Asiedu (2020) shown in a cross-sectional analysis of manufacturing companies in Ghana that manufacturers can recover from unplanned property loss by purchasing an industrial all risks insurance policy. Complex machinery with cutting-edge technology are used in manufacturing plants. One of these machines could fail completely if only one part of it faults. The cost of unplanned downtime is likely to be more for the manufacturer than the cost of servicing the equipment alone. The loss of a critical piece of equipment has a domino effect that stops or at least slows down operations for the majority of manufacturing enterprises (Adams et al., 2017). In the event of a fire or electrical damage, manufacturers who use specialized machinery and equipment may find it costly to repair the damage, replace lost items, or totally rebuild. Natural catastrophes and extreme weather can cause property loss and damage to the manufacturer's facilities, which can be quite expensive (Ayuba, Bambale, Ibrahim & Sulaiman, 2019). When a catastrophe like this happens, it can force a manufacturer to abruptly suspend operations. A competitive edge may be lost if normal activities are not swiftly resumed. Molds, patterns, and die sets are among the distinctive business equipment that are covered by an industrial all risks insurance policy. An Industrial all risks insurance can also assist with the valuation of partially or fully completed products to help ensure that work in progress is adequately covered (Darko et al., 2020).

CONCLUSION

Manufacturing comes with risks that threaten the success of the business if owners don't properly manage them. When determining what types and levels of manufacturing insurance coverage is needed, the directors must remain aware of these risks that could cause a financial burden to their business. A textile mill and an automotive manufacturer may seem to have little in common, yet nearly all manufacturing businesses share a few common risks. These risks ranges from manufacturing equipment breakdown, manufacturing workplace injuries, consumer lawsuits against manufacturers, manufacturing vehicle accidents, property damage to manufacturing plants, pollution damage to manufacturing plants, among others. To mitigate these diverse risks, manufacturers need to take respective insurance covers such as workers' compensation insurance, general liability insurance, product liability insurance, commercial auto insurance, commercial property insurance, pollution liability insurance etc. Subscribing to individual insurance covers can be expensive and might leave insurance gaps. In this essence, it's important for manufacturers to purchase an Industrial all risks insurance policies to ensure there are no insurance coverage gaps.

RECOMMENDATIONS

Based on the findings from the literature review, it is recommended that manufacturing firms in Kenya should seek Industrial all risks insurance coverage as it provides for protection against all potential incidents that can result to massive losses. Manufacturing firms should also seek Industrial all risks insurance coverage as an effort to restrict the loss to their balance sheets, and in that sense, helps them to stay solvent. Additionally, manufacturing firms should also be insured by reputable insurance companies that can be in a position to compensate the manufacturer without denying the claims.

REFERENCES

- Adams, M., Andersson, L. F., Jia, J. Y., & Lindmark, M. (2017). Mutuality as a control for information asymmetry: A historical analysis of the claims experience of mutual and stock fire insurance companies in Sweden, 1889 to 1939. *Business History*, 53(7), 1074-1091.
- Ahinkorah, B. O., & Kissah-Korsah, K. (2021). Mixed effects analysis of factors associated with health insurance coverage among women in sub-Saharan Africa. *PLoS One*, 16(3), e0248411.
- Alhassan, A. L. (2016). Insurance market development and economic growth: Exploring causality in 8 selected African countries. *International Journal of Social Economics*.
- Ani, U. P. D., He, H., & Tiwari, A. (2017). Review of cybersecurity issues in industrial critical infrastructure: manufacturing in perspective. *Journal of Cyber Security Technology*, 1(1), 32-74.
- Ayuba, H., Bambale, A. J. A., Ibrahim, M. A., & Sulaiman, S. A. (2019). Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria. *Journal of Finance, Accounting & Management*, 10(1).
- Barrese, J., Doeringhaus, H. I., & Nelson, J. M. (2017). Do independent agent insurers provide superior service? The insurance marketing puzzle. *Journal of Risk and Insurance*, 297-308.
- Batool, A., & Sahi, A. (2019). Determinants of financial performance of insurance companies of USA and UK during global financial crisis (2007-2016). *International Journal of Accounting Research*, 7(1), 1-9.
- Chang, T. Y., Huang, W., & Wang, Y. (2018). Something in the air: Pollution and the demand for health insurance. *The Review of Economic Studies*, 85(3), 1609-1634.
- Chao, G. H., Irvani, S. M., & Savaskan, R. C. (2019). Quality improvement incentives and product recall cost sharing contracts. *Management science*, 55(7), 1122-1138.
- Chen, C. C. H. (2016). Data governance by insurance companies in Singapore. In *Data Governance in AI, FinTech and LegalTech* (pp. 145-168). Edward Elgar Publishing.
- Darko, A., & Asiedu, R. O. (2020). Service quality of insurance in complex project deals in the construction industry in Ghana. *International Journal of Building Pathology and Adaptation*.
- Feng, Y., Mol, A. P., Lu, Y., He, G., & Van Koppen, C. S. A. (2016). Environmental pollution liability insurance in China: in need of strong government backing. *Ambio*, 43(5), 687-702.
- Fernández-Muñiz, B., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2019). Relation between occupational safety management and firm performance. *Safety science*, 47(7), 980-991.
- Finch, P. (2020). Supply chain risk management. *Supply chain management: an International Journal*, 9(2), 183-196.

- Fossel, A. H., Chapin, A., Keller, R. B., & Katz, J. N. (2019). Measuring the impact of organizational behaviors on work disability prevention and management. *Journal of occupational rehabilitation, 10*(1), 21-38.
- Han, Y., Zheng, E., & Xu, M. (2017). The influence from the past: Organizational imprinting and firms' compliance with social insurance policies in China. *Journal of Business Ethics, 122*(1), 65-77.
- Hansen, J. V., Jacobsen, R. H., & Lau, M. I. (2016). Willingness to pay for insurance in Denmark. *Journal of Risk and Insurance, 83*(1), 49-76.
- Hanson, J. (2020). Commercial Property Insurance. In *Insurance Disputes* (pp. 553-579). Informa Law from Routledge.
- Houghton, S. A. (2021). Jamaica's Cybercrime and Cyber-Security: Policies, laws, and strategies. In *Routledge Companion to Global Cyber-Security Strategy* (pp. 473-483). Routledge.
- Ho, W., Zheng, T., Yildiz, H., & Talluri, S. (2019). Supply chain risk management: a literature review. *International Journal of Production Research, 53*(16), 5031-5069.
- Hwang, S. N., & Kao, T. L. (2018). Using two-stage DEA to measure managerial efficiency change of non-life insurance companies in Taiwan. *International Journal of Management and Decision Making, 9*(4), 377-401.
- Ikegami, N. (2017). Rationale, design and sustainability of long-term care insurance in Japan—in retrospect. *Social Policy and Society, 6*(3), 423-434.
- Inkumsah, W. A., Abdul-Hamid, I. K., & Angenu, B. B. (2021). The effect of learning orientation on innovative service development and insurance firm performance. *Academy of Marketing Studies Journal, 25*(2), 1-12.
- Lamba, A., Singh, S., Dutta, N., & Rela, S. (2016). Identifying & Mitigating Cyber Security Threats In Vehicular Technologies. *International Journal for Technological Research in Engineering, 3*(7).
- Lee, C. C., & Chiu, Y. B. (2016). Globalization and insurance activity: Evidence on the industrial and emerging countries. *The North American Journal of Economics and Finance, 36*, 328-349.
- Lika, R. A., Murugiah, D., Brohi, S. N., & Ramasamy, D. (2018). NotPetya: cyber attack prevention through awareness via gamification. In *2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE)* (pp. 1-6). IEEE.
- MANDARI, S. A. (2021). *Policy Assessment Of Energy Efficiency On Future Energy Demand Of The Industrial. Sector Of Tanzania* (Master's thesis, PAUWES).
- Manuj, I., & Mentzer, J. T. (2018). Global supply chain risk management strategies. *International Journal of Physical Distribution & Logistics Management*.
- Motta, S., Testa, D., Cesari, U., Quaremba, G., & Motta, G. (2015). Medical liability, defensive medicine and professional insurance in otolaryngology. *BMC research notes, 8*(1), 1-4.

- Rao, A., Kashani, H., & Marie, A. (2019). Analysis of managerial efficiency in insurance sector in the UAE: an emerging economy. *International Journal of Managerial Finance*.
- Schallbruch, M., & Skierka, I. (2018). *Cybersecurity in Germany*. Springer International Publishing.
- Silver, C., & Syverud, K. (2015). The professional responsibilities of insurance defense lawyers. *Duke LJ*, 45, 255.
- Singh, P., & Kumar, V. (2017). Insurance coverage under different health schemes in Uttar Pradesh, India. *Clinical Epidemiology and Global Health*, 5(1), 33-39.
- Spekkers, M. H., Ten Veldhuis, J. A. E., Kok, M., & Clemens, F. H. L. R. (2019). Analysis of pluvial flood damage based on data from insurance companies in the Netherlands. In *Proceedings International Symposium Urban Flood Risk Management, UFRIM, 2011, September 21-23, Graz, Austria* (Zenz, G, Hornich, R., ed.). Technische Universitat Graz.
- Suriadi, S., Wynn, M. T., Ouyang, C., ter Hofstede, A. H., & Dijk, N. J. V. (2017). Understanding process behaviours in a large insurance company in Australia: A case study. In *International Conference on Advanced Information Systems Engineering* (pp. 449-464). Springer, Berlin, Heidelberg.
- Tang, C. S. (2016). Perspectives in supply chain risk management. *International journal of production economics*, 103(2), 451-488.
- Thakur, K., Qiu, M., Gai, K., & Ali, M. L. (2017). An investigation on cyber security threats and security models. In *2015 IEEE 2nd International Conference on Cyber Security and Cloud Computing* (pp. 307-311). IEEE.
- Truong, H. Q., & Hara, Y. (2018). Supply chain risk management: manufacturing-and service-oriented firms. *Journal of Manufacturing Technology Management*.
- Vanderpuye-Orgle, J., & Barrett, C. B. (2018). *Risk Management, Insurance and Social Networks in Ghana*. Cornell University Working Papers.