

**THE IMPACT OF GREEN SUPPLY CHAIN MANAGEMENT
(GSCM) TOWARDS COMPETITIVE ADVANTAGE AND
SOCIAL PERFORMANCE MEDIATED BY INNOVATIVE
CAPABILITIES**

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AUTHOR DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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ABSTRAK

Penyelidikan mengenai pengurusan rantaian bekalan hijau telah mendapat perhatian dalam kalangan sarjana, khususnya dalam industri pembuatan. Salah satu sebabnya ialah pengurusan rantaian bekalan hijau boleh memberi kesan kepada daya saing dan prestasi sosial syarikat. Pada masa yang sama, mengoptimumkan sumber firma adalah kebimbangan utama bagi industri untuk mengurangkan pelepasan, meningkatkan amalan mampan dan mencapai daya saing. Selain itu, permintaan global untuk produk mampan meningkat dengan ketara yang mendorong syarikat untuk mematuhi peraturan undang-undang dan kesedaran alam sekitar yang semakin meningkat. Walau bagaimanapun, kajian ini bertujuan untuk merapatkan jurang ini dengan menyediakan bukti empirikal untuk menggalakkan firma melaksanakan amalan PRBH dan keupayaan inovasi untuk mencapai kelebihan daya saing dengan ketara dan meningkatkan prestasi sosial. Namun begitu, pelaksanaan amalan PRBH masih kurang diterima pakai oleh firma pembuatan di Malaysia kerana ramai yang tidak menyedari kepentingannya untuk mengekalkan perniagaan. Justeru, kajian ini dijalankan untuk mengatasi jurang ini. Secara khusus, kajian ini mengkaji kesan amalan PRBH terhadap keupayaan inovasi, kelebihan daya saing firma dan prestasi sosial. Akhir sekali, kajian ini meneroka peranan keupayaan inovasi sebagai pengantara dalam hubungan antara amalan PRBH, kelebihan daya saing firma, dan prestasi sosial. Data kajian ini dikumpul melalui tinjauan di kalangan 258 firms pengilangan bersertifikat ISO 14001 di Malaysia. Perisian Partial Least Squares (Smart-PLS) digunakan untuk menganalisis data dan menguji hipotesis kajian ini. Dapatan kajian ini mendedahkan bahawa semua hipotesis telah disokong. Secara terperinci, hasil kajian menunjukkan bahawa terdapat kesan yang signifikan terhadap amalan PRBH dan kelebihan daya saing. Walau bagaimanapun, amalan PRBH didapati memberi kesan positif dan signifikan terhadap keupayaan inovasi dan prestasi sosial. Didapati juga terdapat pengaruh positif dan signifikan keupayaan inovasi terhadap kelebihan daya saing dan prestasi sosial. Selain itu, keupayaan inovasi didapati menjadi pengantara separa perhubungan antara amalan PRBH dan kelebihan daya saing, serta pengantara separa perhubungan antara amalan PRBH dan prestasi sosial. Ringkasnya, penemuan menunjukkan implikasi yang ketara dari segi kepentingan pengurusan rantaian bekalan hijau terhadap daya saing dan peningkatan syarikat dalam prestasi sosial industri pembuatan Malaysia. Oleh itu, kajian semasa mengesyorkan mengamalkan amalan hijau dalam proses pembuatan mereka untuk mencapai daya saing di kalangan pesaing dan meningkatkan prestasi sosial. Ini akan meningkatkan prestasi dan keberkesanan industri pembuatan dalam konteks Malaysia.

ABSTRACT

Research on green supply chain management has received attention among scholars, particularly in the manufacturing industry. One of the reasons is that green supply chain management can impact company's competitiveness and social performance. At the same time, optimizing firm's resources are major concern for industries to reduce emissions, boost sustainable practices and achieve competitiveness. Moreover, global demand for sustainable products is increasing significantly which drives the company to comply with legal regulations and growing environmental awareness. However, this study aims to bridge this gap by providing empirical evidence to encourage firms to implement GSCM practices and innovation capabilities to achieve a competitive advantage significantly and improve social performance. Nevertheless, implementation of GSCM practices is still less adopted by manufacturing firms in Malaysia since many are not aware of its importance to sustain the business. Hence, this study was conducted to address this gap. Specifically, this study examines the effect of GSCM practice on innovation capabilities, a firm's competitive advantage, and social performance. Finally, this study explores the role of innovation capabilities as a mediator in the relationship between GSCM practice, a firm's competitive advantage, and social performance. The data of this study was collected through a survey among 258 certified ISO 14001 manufacturing firms in Malaysia. Partial Least Squares (Smart-PLS) software was used to analyse the data and to test the hypotheses of this study. The findings of this study revealed that all hypotheses were supported. In detail, the results of the study indicated that there was a significant effect of GSCM practices and competitive advantages. However, GSCM practices were found to have a positive and significant effect on innovation capabilities and social performance. It was also found that there was a positive and significant influence of innovation capabilities on competitive advantages and social performance. Moreover, innovation capabilities found to be partially mediate the relationships between GSCM practices and competitive advantages, as well as partially mediate the relationship between GSCM practices and social performance. In short, the findings show significant implications in terms of the importance of green supply chain management toward company's competitiveness and improvement in the social performance Malaysian manufacturing industry. Therefore, the current study recommends adopting green practices in their manufacturing process in order to achieve competitiveness among rivals and improve social performance. This will enhance the performance and effectiveness of the manufacturing industry in the Malaysian context.

الملخص

لقد حظي موضوع إدارة سلسلة التوريد الخضراء باهتمام كبير في أوساط الباحثين والمهتمين في هذا المجال وعلى وجه الخصوص في مجال الصناعات التحويلية. أحد الأسباب هو أن إدارة سلسلة التوريد الخضراء يمكن أن تؤثر على القدرة التنافسية للشركة والأداء الاجتماعي. في الوقت نفسه، يعد تحسين موارد الشركة مصدر قلق كبير للصناعات لتقليل الانبعاثات وتعزيز الممارسات المستدامة وتحقيق القدرة التنافسية. علاوة على ذلك، يتزايد الطلب العالمي على المنتجات المستدامة بشكل كبير مما يدفع الشركة إلى الامتثال للوائح القانونية والوعي البيئي المتزايد. ومع ذلك، تهدف هذه الدراسة إلى سد هذه الفجوة من خلال تقديم أدلة تجريبية لتشجيع الشركات على تطبيق ممارسات إدارة سلسلة التوريد الخضراء وقدرات الابتكار لتحقيق ميزة تنافسية بشكل كبير وتحسين الأداء الاجتماعي. ومع ذلك، لا يزال تطبيق ممارسات إدارة سلسلة التوريد الخضراء أقل اعتماداً من قبل شركات التصنيع في ماليزيا لأن الكثيرين لا يدركون أهميتها للحفاظ على الأعمال. ومن ثم أجريت هذه الدراسة لمعالجة هذه الفجوة. على وجه التحديد، تبحث هذه الدراسة في تأثير ممارسات إدارة سلسلة التوريد الخضراء على قدرات الابتكار، والميزة التنافسية للشركة، والأداء الاجتماعي. أخيراً، تستكشف هذه الدراسة دور قدرات الابتكار كوسيط في العلاقة بين ممارسة إدارة سلسلة التوريد الخضراء، والميزة التنافسية للشركة، والأداء الاجتماعي. وفيما يتعلق ببيانات هذه الدراسة تم توزيع الاستبانة الخاصة بمتغيرات الدراسة على عدد ٢٥٨ شركة صناعية من شركات التصنيع في ماليزيا والمشاركة في (أيسو ١٤٠٠١). ولغرض تحليل البيانات لاختبار فرضيات هذا البحث، تم استخدام برنامج المربعات الجزئية (سمارت بي ال اس). كشفت نتائج هذه الدراسة أن جميع الفرضيات مدعومة. بالتفصيل، أشارت نتائج الدراسة إلى وجود تأثير كبير لممارسات ممارسة إدارة سلسلة التوريد الخضراء والمزايا التنافسية. ومع ذلك، وجد أن ممارسات إدارة سلسلة التوريد الخضراء لها تأثير إيجابي وهام على قدرات الابتكار والأداء الاجتماعي. كما وجد أن هناك تأثيراً إيجابياً وهاماً لقدرات الابتكار على المزايا التنافسية والأداء الاجتماعي. علاوة على ذلك، وجد أن قدرات الابتكار تتوسط جزئياً في العلاقات بين ممارسات إدارة سلسلة التوريد الخضراء والمزايا التنافسية، فضلاً عن التوسط جزئياً في العلاقة بين ممارسات إدارة سلسلة التوريد الخضراء والأداء الاجتماعي. باختصار، تظهر النتائج آثاراً كبيرة من حيث أهمية إدارة سلسلة التوريد الخضراء تجاه القدرة التنافسية للشركة وتحسين الأداء الاجتماعي للصناعة التحويلية الماليزية. لذلك، توصي الدراسة الحالية بتبني الممارسات الخضراء في عملية التصنيع الخاصة بهم من أجل تحقيق التنافسية بين الشركات المنافسة وتحسين الأداء الاجتماعي. سيعزز هذا أداء وفعالية الصناعة التحويلية في السياق الماليزي.

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LIST OF ABBREVIATIONS

GSCM	Green Supply Chain Management
SCM	Supply Chain Management
SC	Supply Chain
DOSM	Department of Statistics Malaysia
IEM	Internal Environmental Management
GP	Green Purchasing
EDP	Eco-Design and Packaging
CC	Cooperation with Customers
IR	Investment Recovery
IC	Innovation Capabilities
CA	Competitive Advantages
SP	Social Performance
SPSS	Software Package for Statistical Analysis
SEM	Structural Equation Modelling
SDG	Sustainable Development Goals
KPI	Key Performance Indicators
RBV	Resource-Based View