DISCHARGING NON-PROFIT ACCOUNTABILITY THROUGH KNOWLEDGE MANAGEMENT AND PERFORMANCE INFORMATION USE

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ABSTRACT

Non-Profit Organisations (NPOs) are gradually playing a pivotal role in the economy of the country by delivering public goods and services towards society. However, NPOs are experiencing difficulties in addressing escalated social issues especially in the current pandemic situation. As NPOs compete for limited funding, the need to be perceived as accountable entities becomes even greater. In discharging their accountability, NPOs need to provide a basis for appropriate accountability through effective management of knowledge, which can help to portray their values, legitimise organisations, and appear to continue growth and health in their stakeholders' eyes. To ensure optimisation of the knowledge in making substantive decisions, the management of NPOs must possess capabilities in managing and reporting their performance information to the relevant stakeholders. Therefore, it is crucial to assess relevant knowledge and skill to acquire, convert, and apply the acquired knowledge in order for them to use the performance information among NPOs' management effectively. As staff capabilities are important to ensure only relevant and useful data is collected to produce useful information for effective decision making, this study aims to examine the relationship between the knowledge process capabilities and the use of performance information among NPOs in Malaysia. Through the lens of Knowledge-Based View theory (KBV), this study exploits how effective management of knowledge resource can stimulate performance information use for discharging NPOs accountability. A questionnaire-based survey is conducted to assess knowledge process capability among respondents of 60 NPOs. The findings indicate that knowledge application has a significant influence on the use of performance information. These relevant findings are likely to assist NPOs in strategising their knowledge management activities and enhance the use of performance information in decision making.

Keywords: Knowledge Process Capabilities, Performance Information Use, Decision-making Effectiveness

INTRODUCTION

NPO plays a significant role in tackling social issues in society. Unlike profit organisation, the main focus of NPOs is to create impact or value to the society that they serve. Ebrahim & Rangan (2014) argue that one of the most widely advocated social performance measures involves an assessment of impacts or results. In the current knowledge-based era, a large body of literature argues that knowledge resource is vital in ensuring organisational survival, stability and growth (Attia & Essam Eldin, 2018). Knowledge is recognised as a driver of competitive advantage (Razzaq et al., 2019) as the management of knowledge would be effective when it can provide ways to locate and share the processes and mechanisms of internal information of the organisations (Davenport & Prusak, 1998). As the NPOs are unique, sharing internal practices information is crucial in measuring their performance (Ebrahim & Rangan, 2014; Liket, Rey-Garcia & Maas,

2014; McConville & Cordery, 2018; Zack, McKeen & Singh, 2009). Performance measurements on the outputs, outcomes and impacts would make them able to exploit possessed expertise and knowledge for strategic decision-making (Liket et al., 2014).

According to Ragsdell, Espinet & Norris (2013), NPOs competitive edge and secure trusts and support from funders and other stakeholders can be enhanced when they are able to share the information about social mission performance in an effective way. Accordingly, past literature has heavily underlined the importance of knowledge management adoption as a mechanism to improve performance (Gharakhani & Mousakhani, 2012; Tseng, 2016), as a primary source for developing core competencies, improving performance (Chawla & Joshi, 2010; Sheng, Chang, Teo & Lin, 2013), creating value, and attaining competitive advantage (Mahdi, Nassar & Almsafir, 2019); leading to improve efficiency and effectiveness of the organisations (Granados, Mohamed & Hlupic, 2017) and it succeeds as well.

Knowledge Management (KM) refers to the organisational strategy to deliver the relevant knowledge to the right team member in the organisation at the right time. It aims to facilitate information sharing among team members so that their collective intelligence can further increase an organisation's response and innovation abilities. Researchers from past and present have recognised and acknowledged the importance of efficient use of knowledge. Despite emerging practices on knowledge management within NPOs, however, limited empirical studies were focusing on how the knowledge on organisation performance could be an important factor to influence substantive decisions by NPOs (Tsui, Kinghorn, Huck & Rathi, 2011; Hume & Hume, 2015).

Thus, this study attempts to examine the relationship between knowledge management process capabilities and the use of performance information by NPOs in Malaysia. This study focuses on four types of KM processes capabilities: acquisition, conversion, application, and protection, which support the creation and integration of knowledge. The central argument in this study is that KM processes can leverage the knowledge efficiently and utilise the performance measurement more effectively for continuous monitoring of social initiatives carried out by the NPOs. The findings expect to contribute in two significant ways. First, this study builds on the extant literature on knowledge management in identifying the relevant organisational capability to enhance the use of performance information for the not-for-profit sector. Secondly, this study contributes to the increased calls by advocates on aiding organisations to strategically adopt KM initiatives in reaping maximum benefits that contribute to improve the utilisation of performance and impactful information while making strategic decisions (Liket, Rey-Garcia & Maas, 2014).

REVIEW OF LITERATURE AND THE DEVELOPMENT OF HYPOTHESES

Knowledge-based View Theory, Knowledge Management and Performance Information Use

The knowledge-Based View (KBV) theory views knowledge as the most valuable strategic resource in an organization. Kknowledge is becoming a primary resource that can develop organisational capabilities that lead to organisational growth, survival and improve long-term strategies (Grant 1996; Zack, 1999; Tzortzaki & Mihiotis, 2014). It is noted that NPOs in many countries are now operating in an unsettled environment where voluntary donations and government funding are under pressure coupled with an increasing demand for their services (Ragsdell, Cantu & Mondragon, 2016), thus creating competition among the NPOs. Hence, NPOs should demonstrate that they are able to manage the funds to achieve not only their social mission effectively and efficiently, but also to enhance their competitive edge and secure trusts and support from funders as well as other stakeholders. This gives rise to the demand for measuring and reporting their performance to funders and other stakeholders. While there is a pressing need for NPOs to measure

their performance, a bundle of literature on NPOs had highlighted several challenges such as the development of appropriate measures given a lack of guidance (Hyndman & MacConville, 2018), the under-theorised topic of performance in the social sector and the need of conceptual framing (Ebrahim & Rangan, 2014), nonprofit staff lack of capacity (Carman & Fredericks, 2010), inadequate knowledge or expertise and skills (Carnochan, Samples, Myers & Austin, 2014; Ormiston & Seymour, 2011; Haski-Leventhal & Mehra, 2016). Another stream of literature on performance measures in NPOs is the utilisation of performance measures (Lee, 2020; Kim, Charles & Pettijohn, 2019; Lee & Clerkin, 2017). Even though this stream of literature is still less researched, attempts have been made to examine the relationships between performance measurement carried out and the usefulness of the performance information. Hence, in directing NPOs to achieve strategic management towards a competitive edge, it is important to understand the mechanisms that can facilitate knowledge management. To fulfil the demands a human involvement in the system is important and useful for decision-making purposes that will direct NPOs achieving strategic management towards a competitive edge.

In facing a competitive environment, NPOs must also continuously differentiate themselves from their competitors by creating competitive advantage through adaptive capabilities or innovative strategies (Ragsdell et al., 2016). However, many NPOs have limited resources to grasp external knowledge through their individual abilities to fulfil their organisations' purposes. To better facilitate NPOs in achieving their competitive edge, it is important to understand appropriate mechanisms to manage the knowledge. As KM involves several processes of creating, capturing, codifying, storing, sharing, distributing and using the knowledge within an organisation (Caballero-Anthony, Cook & Chen, 2021), effective knowledge management could create sustainable competitive advantages that competitors may not be able to imitate (Mahdi, Nassar & Almsafir, 2019). In most KM research, Gold et al. (2001) framework is widely referred by researchers in examining the links between KM and various organisational improvements: knowledge management success (Allameh & Zare, 2011; Gururajan & Tsai, 2013), organizational performance (Gold et al., 2001; Shih & Tsai, 2016; Lee & Choi, 2003; Mills & Smith, 2011, Wu & Chen 2014; Ngah, 2016), organization innovation (Ho, 2009) and strategy implementation or competitive advantage (Chuang, 2004; Tseng, 2016). The framework is constructed by two major elements: knowledge infrastructure perspective and knowledge process capability; which focus on the set of activities where the set of activities or process has been described in different terms by different scholars. As such, Gold, et al., (2001) find a positive relationship between both knowledge infrastructure capability and knowledge process capability and organisational performance.

In a similar vein, Corfield, Paton & Little, (2013) suggest that NPOs should be selective and realistic in implementing particular KM practices and customise them to meet particular organisational needs. Given the inherent resource challenges faced by NPOs, particularly related to enabling mechanisms that support KM effectiveness, it is crucial to examine the management processes that can facilitate effective implementation of KM. The knowledge management processes represent the knowledge activities within the organisation that leverage the organisational capability to generate valuable and strategic knowledge. These knowledge management processes form a mechanism that facilitates members in an organisation to acquire, convert, share and use their knowledge and experiences (Iqbal et al., 2019). Hence, this study focuses on knowledge management process capability that hypothesises to influence KM adoption effectiveness in NPOs, resulting in more meaningful use of performance measurement.

Knowledge Management and the Performance Information Use

Numerous prior studies have conducted to examine the links between knowledge management and various organisational improvements: knowledge management success (Zaim,

Muhammed & Tarim, 2019; Allameh & Zare, 2011; Gururajan & Tsai, 2013), organisational performance {Formatting Citation}, organisation innovation (Abbas & Sağsan, 2019; Mohamad, Ramayah & Lo, 2020) and strategy implementation or competitive advantage (Dahou, Hacini & Burgoyne, 2019; Tseng, 2016). KM practices and strategies in for-profit organisations are more established relative to empirical evidence based on NPOs. However, due to substantial differences between for-profit organisations and NPOs, such as regulatory requirements, management structure, organisational mission and objectives, and limited resources available to the NPOs, KM practices and strategies are expected to differ in NPOs. For example, Granados, et al., (2017) suggest that NPOs should customise the implementation of KM to fits in the unique context of NPOs. Cardoso, et al., (2012) suggest knowledge-centred culture and training are important in the successful implementation of KM practices. The role of motivation, rewards, the value of trust, and organisational structure is important in enhancing knowledge sharing practices (Ragsdell et al., 2014).

Given the inherent resource challenges faced by NPOs, particularly related to enabling mechanism that support KM effectiveness, it is crucial to examine the process or knowledge activities that can facilitate effective implementation of KM. Scholars in the KM area contended that there is a strong relationship between KM capability, innovation, improvement in decision-making (Sher & Lee 2004), product improvement, and staff skills enhancement (Kiessling, Richey, Meng & Dabic, 2009). Various KM scholars have defined this process differently, such as knowledge creation, capture, generation, codification, sharing, transferring, and knowledge usage, but no specific reference to these processes in NPOs is presented due to the paucity of the research study of KM in NPOs. Figure 1 exhibits four elements of knowledge management process, *i.e.*, acquisition, conversion, application and protection (Gold et al., 2001) resulting in impactful performance information that can be utilised when making strategic decisions.

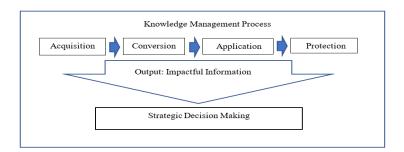


FIGURE 1 KNOWLEDGE MANAGEMENT PROCESS

Knowledge acquisition process act as an important mechanism for the organisation to transfer social knowledge and source of creation of new knowledge and new learning process (Attia & Essam Eldin, 2018; Kogut & Zander, 1992). According to Gold, et al., (2001), a competition environment forces organisations to upgrade their knowledge bases to be competitive. To do so, they need to develop their absorptive capacity of external knowledge (Lane et al., 2006). In doing so, it very much dependent on the employee motivation and skills to acquires and use it in their task (Minbaeva et al., 2003). This aspect is relevant for NPOs due to the tacit nature of their knowledge base. Nevertheless, the increasing reported benefits of acquiring knowledge in facilitating other strategies and processes in the current environment should also be considered in KM for NPOs.

Knowledge should be transformed in order to maintain the learning process and sharing among members of the organisation. This, in turn, could enhance organisations' dynamic capability to adapt and respond to the changing environment (Zollo & Winter, 2002), which is relevant to NPOs. Thus, to excel in this process, the organisation should integrate many individuals'

specialised knowledge (Grant, 1996). Hence, the knowledge that was captured from various sources, both internal and external, requires to be converted into organisational knowledge for its effective use by the organisation. Prior empirical studies had demonstrated a positive relationship between knowledge conversion activities and organisational outcomes such as organisational effectiveness (Chui & Chen, 2016), innovation (Obeidat, Al-Suradi, Masa'deh & Tarhini, 2016), competitiveness (Mahdi et al., 2019), performance (Cegarra-Navarro, Soto-Acosta & Wensley, 2016) and general KM performance.

Omerzel, Antoncic & Ruzzier (2011) assert the need to make knowledge practically used to enable the creation of value-added within the organisation. By effectively applied and utilising knowledge, individuals might reduce their risk of making any decision and avoid mistake and improve efficiency (Gold et al., 2001; Grant, 1996). Mills & Smith (2011) pointed that knowledge application means using the knowledge to create value in the organisation, which can be reflected in innovation, creations, and new products. From the organizational perspective, knowledge should be applied and shared within the organization to produce organizational knowledge, as it is essential for the growth and competitiveness of the organization (Sigala & Chalkiti, 2015; Kim & Lee, 2013). Knowledge needs to be shared to become organisation knowledge as organizations do not own the intellectual assets of their employees, and are not in a position to force the employees to practice KM behaviour (Connelly, Webster & Trougakos, 2012). To do this, there is a need to motivate employee to practice knowledge management. One of the common ways to apply knowledge is adopting the best practices of a market leader, to identify and use this relevant knowledge (Sandhawalia & Dalcher, 2011).

Knowledge protection activities are associated with the effective control and protection of knowledge within an organisation from inappropriate or illegal use (Kaiser, Thalmann & Pammer-Schindler, 2020; Gold et al., 2001; Mills & Smith, 2011). Some of the activities concerning knowledge protection involve copyright, patents and IT systems that restrict and control access to knowledge and information. Hence, an organisation needs to protect vital knowledge from being access. This is because knowledge has become a source of competitive advantage for an organisation as it is rare and inimitable (Barney, 1991). Without proper control and security process, knowledge loses these important qualities (Gold et al., 2001). Prior empirical studies found that knowledge protection activities influence general organisational performance by ensuring and supporting the enterprises' ability to generate or preserve a competitive advantage (Ramayah, Soto-Acosta, Kheng & Mahmud, 2020; Gold et al., 2001; Mills & Smith, 2011).

From the knowledge-based view, the value of individual and organisational knowledge resides primarily on its application because of the tacitness of knowledge (Grant, 1996). As a result, Mills & Smith (2011) found that of five knowledge processes studied (e.g. acquisition, creation, application), only knowledge application was directly linked to organisational performance. Hence, it is expected that utilising the transferring knowledge could strengthen NPO's capability in maximising their value. Based on the preceding discussion, the following hypotheses are posited:

Hence, it is expected that acquisition activities in NPOs will generate more new knowledge and use the knowledge in the organisation as well as enhance accessibility and utilisation of the knowledge. Based on this argument, the following hypotheses are developed:

- H1: Knowledge acquisition process is positively significantly related to the performance information use
- H2: Knowledge conversion process is positively significantly related to the performance information use
- H3: Knowledge application process is positively significantly related to the performance information use
- H4: Knowledge protection process is positively significantly related to the performance information use

METHODOLOGY

Sample and Data Collection

Data is gathered through a questionnaire survey distributed to manager/owners/trustees of selected NPOs in Malaysia. The NPOs were selected based on their involvement in different social missions such as health, education, social services and cultural foundations. Hence, selected NPOs are those registered with two main regulators in Malaysia; the Registry of Society and the Companies Commission of Malaysia. A total of 60 respondents were obtained, however, 10 respondents were discarded due to incomplete data.

Questionnaire Development

The survey consisted of three parts; the first part consists of a series of questions related to four elements of knowledge management process capability such as knowledge acquisition, conversion, application and protection are adapted from Gold, et al., (2001). The second part consists of nine questions on the use of performance information adapted from (Eckerd & Moulton, 2011). The respondents' opinions on specific statements in both parts are measured using a seven-point Likert scale ranging from (1) 'strongly disagree' to (7) 'strongly agree' or (1) "Not at all" and (7) "Totally". This range of choices has been found to be more reliable and valid in enhancing the level of consistency in scale measurement (Krosnick, 1991; Caruana, Ewing & Ramaseshan, 2000). While in the third part of the questionnaire, the nominal scale is used to assess the demographic data from the NPOs.

ANALYSIS OF RESULTS AND DISCUSSION

Descriptive Analysis

Table 1 shows the descriptive analysis of the demographic of the respondents. On average, the number of NPOs employees is 16, where 50% of them have more than 9 employees. The minimum number of employees is 0 (no employee), and the maximum is 108 employees. The majority of NPOs have been in operation for 12 years, with 50% of the NPOs having more than 9 years operational. While NPOs' income per annum is reported at RM340,487.18 on average. It is reported that 50% of the NPOs have an income of less than RM24,000 income per annum and the remaining 50% of the NPOs have more than RM24,000 per annum. The minimum income per annum is RM0 (no income), and the maximum is RM5,000,000. In addition, most of the NPOs in the sample received funding through contributions relative to other forms of revenue, such as those generated from commercial activities and investments.

Table 1 DESCRIPTIVE STATISTICS ON DEMOGRAPHIC OF THE NPOS							
	Years in Operation	No of employees	Average yearly income (RM				
Mean	12.7	16.4	340,487.18				
Minimum	2	0	0				
Maximum	45	108	5,000,000				
Std. Deviation	11.403	21.976	902,312.41				

Multiple Regression Analysis

Table 2 summarises the correlation analysis results between the acquisition, conversion, application and protection in KM and the usefulness of performance measurement. The results of correlation coefficient were acquisition (0.604), conversion (0.705), application (0.715) and protection (0.542) with p-value <0.01. Therefore, it is concluded that there was a significant positive linear relationship between independent variables (acquisition, conversion, application and protection) towards NPOs performance.

Table 2 CORRELATION COEFFICIENT							
	Acquisition	Conversion	Application	Protection	PI Use		
Acquisition	1	0.787**	0.574**	0.634**	0.604**		
Conversion		1	0.703**	0.784**	0.705**		
Application			1	0.678**	0.715**		
Protection				1	0.542**		
Performance Information Use					1		
** r is significant at the 0.01 level (2-tailed).							

The collinearity statistics indicate that all tolerance values were more than 0.10 and VIF values of less than 10 indicate that there were no multicollinearity problems as reported in Table 3.

Table 3 COLLINEARITY STATISTICS					
	Collinearity Statistics				
Independent variable	Tolerance	VIF			
Acquisition	0.379	2.640			
Conversion	0.224	4.470			
Application	0.464	2.157			
Protection	0.353	2.832			

The results of the regression analysis are presented in Table 4 below and discussed each of the hypotheses developed.

Table 4 MULTIPLE REGRESSION RESULTS						
\mathbb{R}^2	0.609					
Adjusted R ²	0.574					
F	43.966					
Sig.	0.000***					
Model	Beta	t	Sig.			
Constant	-	2.511	0.016			
Acquisition	0.111	0.731	0.469			
Conversion	0.430	2.182	0.034**			
Application	0.477	3.479	0.001***			
Protection	-0.188	-1.200	0.236			
*** significant at 1% ** significant at 5%						

This model indicates that the variables of the knowledge process capability have significantly explained the performance information use by the adjusted R^2 of 57.4%.

Hypothesis 1 (H1) predicted that there is a significant positive influence between the knowledge acquisition process and the use of performance information. Knowledge acquisition is measured based on four items, obtaining knowledge about the industry, acquiring knowledge about improving organisational performance, organising knowledge about service provided and acquiring knowledge about the work process. The results show that knowledge acquisition process capability has an insignificant influence on the use of performance information, which is at 0.469. This result is similar to Shahzad, et al., (2019) findings, where there was an insignificant relationship between knowledge acquisition and social sustainability and contradicts Sztangret (2017) in the context of organisational capabilities. NPOs might have less activities of acquiring knowledge within the organisation could be a limited resource to attend relevant training on performance measures cause fewer activities of acquiring knowledge. The expected strong knowledge acquiring activities in NPOs can enhance the creation of new knowledge and facilitate knowledge innovation, which can potentially enhance the members' capabilities to embrace the importance of performance measurement. Hence, HI is rejected.

Hypothesis 2 (H2) predicts that the knowledge conversion process is significantly positively related to the use of performance information. Four items measure the knowledge conversion in this study: sharing knowledge about citizens and business, sharing knowledge about improving organisational performance, sharing knowledge about services, sharing knowledge about work processes. The results in Table 4 show that the knowledge conversion process has an insignificant influence on the use of performance information, which is at 0.034. Hence, H2 is rejected. This result contradicts findings by Habib, et al., (2019); Abbas, et al., (2019) in that knowledge conversion significantly increases workers' innovation capabilities and organisational performance. This result demonstrated that the sampled NPOs have not concentrated on knowledge conversion within their organisation. This result confirmed Mageswari, Sivasubramanian & Dath's (2017) claim that the conversion process does not directly guarantee process improvement. The inconsistencies in the findings could be due to the nature of knowledge conversion itself. Knowledge conversion involves activities undertaken by employees in updating the organisation's old knowledge into the new one (Gold et al., 2001) and the employees on their own are likely keeping abreast with the new knowledge without any record or storing it effectively. When the employees leave the organisations, they would bring the knowledge with them and, as a consequence, contribute to the loss of organisational institutional memory. One of the ways to improve knowledge conversion that would enhance organisational outcomes is through activities such as face-to-face discussions and learning through observation (Mohamad et al., 2020).

Hypothesis 3 (H3) predicts that the knowledge application process is significantly positively related to the use of performance information. Knowledge application is measured based on four items: applying existing knowledge to meet citizens' needs and business needs, using existing knowledge to improve organisational performance, using existing knowledge to improve work processes and applying existing knowledge to improve services. The results in Table 4 show that knowledge application has a significant influence on the use of performance information, which is at a p-value of 0.001. The results indicate that the sampled organisations place a strong emphasis on the application of knowledge for the use of performance information. This result supported previous studies; Delshab, et al., (2020) on NPOs performance. The result of this study demonstrated that the sampled NPOs creating value by making the knowledge relevant and actively use it into practical action in this context is for decision-making purposes. Hence, staff's capability is important to ensure successful transition or translate the knowledge into practical use. Hence, H3 is accepted.

Hypothesis 4 (H4) predicts that the knowledge protection process is significantly positively related to the use of performance information. Four items measure knowledge protection: protecting

knowledge from inappropriate use inside and outside the organisation, protecting knowledge from theft inside and outside the organisation, enforcing policies and procedures for protecting secrets, valuing and protecting knowledge of individuals and emphasising the importance of protecting knowledge. The results in Table 4 show that knowledge protection has an insignificant influence on the use of performance information, which is at 0.236. Hence, H4 is rejected. This implies that knowledge protection does not contribute to the use of performance information among NPOs. This result contradicted previous studies in that a significant relationship was found between knowledge protection and service quality (Tseng, 2016); with growth performance (Bakar et al., 2016) and with organisational performance (Tseng & Lee, 2014). The results indicated that NPOs perhaps were not equally competent at deploying their capabilities to protect their knowledge to be used for a competitive advantage. By protecting their core knowledge, organisations can mitigate their chances of knowledge spillovers (Kaiser et al., 2020). One informal mechanism for knowledge protection is building trust (Di Stefano et al., 2014). Furthermore, part of the protection mechanism needs to be built with technology infrastructure, whereas NPOs might have limited resources to engage in the technological aspect. In addition, the technology mechanism is strongly supported by previous scholars to coordinate with other resources (Lee & Choi, 2003).

CONCLUSION AND LIMITATIONS

This study aims is to investigate the relationship between knowledge management and the use of performance information among NPOs in Malaysia. The literature is repleted with studies that suggest knowledge management capabilities impacts on organisational performance. However, there have been limited studies of the relationships between KM and PI use especially in the NPOs context. Some implications can be highlighted in this study.

Firstly, the relationship between the KM process and the utilisation of performance information may provide some guideline on the current knowledge practice in NPOs. This relationship also provides insight into how NPOs can achieve a competitive edge and sustainability by understanding the impact of the KM process. Practically, NPOs practitioners could assess their own conditions and capacities to possibly make more effective decisions concerning the directions of their KM initiatives. As the knowledge process capabilities could become an effective lever in translating knowledge-related factors into effective decision making, it is incumbent on managers to identify which process capabilities are most salient to organisational competencies. Further insights on the mechanisms to support organisations in reaping maximum benefits from their KM initiatives are anticipated since there are no "silver-bullet" combinations when it comes to enhancing organisational competencies.

Secondly, the KM process and the utilisation of performance measurement could help the government as a policymaker designs a better strategy that could enhance the NPO sector's capability. This would lead to increase NPOs' visibility and maximise their impact on a wider social group. However, this study is not without limitation. The methodological approach is strongly based on a quantitative method using cross-sectional data. Hence, this would only allow inferences on the hypothesised model.

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