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Key Benefits of Enterprise Resource Planning Adoption within Small Family Businesses: A Conceptual Framework.

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Abstract

This research mainly focused on the perceived benefits of ERP adoption for Small Family Businesses (SFB). In doing so, it explores some of the key benefits of an ERP system for SMEs. Through the exploration of the literature, a framework is constructed classifying the ERP benefits to SFBs, in that they are different to other businesses where ERP systems have historically been implemented.

The literature also helps establish that there are some differences in how ERP benefits SFBs owed to the family ownership and management of business that brings about unique characteristics. Finally, this research concludes that adopting an ERP system within a SFB environment could assist in them achieving their main goals by improving business performance and better managerial control. It could also aid the achievement of SFB's succession goals. It is, however, unclear how the ERP system can manage the tacit family and business knowledge relied upon by SFBs for their survival.

KEY WORDS: *Enterprise Resource Planning Systems, Enterprise Resource Planning Adoption, Enterprise Resource Planning Key Benefits, Small Family Businesses*

INTRODUCTION

A common theme is that when an Enterprise Resource Planning (ERP) system is adopted by businesses, it is understood that it brings benefits resulting in competitive advantage if it is successfully deployed (Shang and Seddon, 2000, Davenport, 2000; Klaus, 2002; Teittennen *et al.*, 2013; Kramer, 2016). An ERP system is a commercial software package (Davenport, 2000; Markus *et al.*, 2000) that promotes seamless integration of all the information flowing through a company (Davenport 1998). It is identified that ERP adoption in Small and Medium Enterprises (SMEs) has brought as much benefits as their larger counterparts, depending on their business needs (Haddara, 2013; Griffith *et al.*, 2013). However, despite the benefits of ERP, several studies have focused on the success and failure factors due to the mixed fortunes of businesses with the deployment of ERP (Allart, 2015; Dey *et al.*, 2013).

Small Family Businesses (SFBs), however, have a low tendency of success with the adoption of the ERP system due to the high family influence in such business (Smith, 2016). SFBs according to the Office for National Statistics' (ONS) description of small businesses are family owned and managed businesses with less than fifty (50) employees. The perceived specific benefits of such technology to SFB goals, however, improve the chances of technology adoption (Kellerman, 2012; De Massis *et al.*, 2016). With there being a limited amount of ERP studies on SFBs, this paper contributes to knowledge by investigating if or how the ERP system is of benefit to SFBs despite their characteristics. This study is based on the comparison of ERP benefits to SMEs and the characteristics of SFBs based on the review of the literature. The ERP benefits are based on the ERP benefits framework to understand the categories of ERP benefits that apply to SFBs.

1.0. THE CHARACTERISTICS OF SMALL FAMILY BUSINESSES

This section explores the characteristics of Small Family Businesses from extant literature to establish if the ERP system might be of benefit to such business.

Chua *et al.* (1999) described Family Business as a “*business governed and/or managed on a sustainable, potentially cross-generational, basis to shape and perhaps pursue the formal or implicit vision of the business held by members of the same family or a small number of families*”. Although, PWC (2012; 2014) offered alternate definitions for FBs, Chua *et al.* (1999)'s definition shows not just the ownership but the goals of FBs as identified by other studies (Sharma, 2004; Dessi *et al.*, 2014; De Massis *et al.*, 2016). With SFBs having the most the FB characteristics (De Massis *et al.*, 2016), the FB characteristics are discussed below as SFB characteristics.

1.1. THE MANAGERIAL CHARACTERISTICS

Studies (e.g. Sirmon and Hitt, 2003; BIS, 2014) suggest that SFBs may not be willing to grow due to the fear of losing control, resistance to change and prioritising long-term sustenance over short-term growth in profit. However, if or when growth occurs, the interest remains to maintain the family control while sustaining the business towards a possible succession. It is suggested that management in SFBs involve personalising authority amongst family members in such a way that it is centralised, hierarchical and resembles family authority settings (Carney, 2005; Stewart & Hitt, 2012). BIS (2013; 2014) suggest that Family Businesses especially SFBs strive to maintain this family control and do not often seek any external aid.

Family involvement in business means managing resources is not as straightforward as with other businesses. The resources available to a family business are most referred to as the socio-economic wealth of a family business (Sirmon and Hitt, 2003; Habbershon and Williams, 1999), and these may include but not limited to financial, human and non-financial resources. Sirmon and Hitt (2003) suggest that the limited availability of these resources in SFBs implies the need for effective management if competitive advantage is to be gained or maintained. However, the non-financial goals of a Small family business affects how its resources are managed and hence, decision-making and strategic planning are also affected (Songini and Gnan, 2015; Nose *et al.*, 2015; Alderson, 2015). For example, Sirmon and Hitt (2003) suggest that SFBs may require alliance or collaboration with other businesses to be able to gain enough competitive advantage to survive due to their limited resources. However, most SFBs are not willing to collaborate because they want the business and resources at a level that can be easily managed by the family (BIS, 2013; BIS, 2014). It should be noted that the tacit knowledge of the market is a valuable resource that SFBs thrive to keep for business survival (Danes and Floris, 2010).

Also, as mentioned above, decision making in SFBS is different to other businesses. The altruist nature of a family means both the family and business considerations affect decisions made in a Small Family Business (Acquaah, 2016; Farkas, 2016). It is in fact argued that unless the family and business goals align, decisions made in SFBs may lead to conflicts which may disrupt the business (Miller and Le Breton-Miller, 2006). Also, such decisions are made by the family manager while other stakeholders commit fully to such decision (Spencer *et al.*, 2012).

However, with the ERP system SFBs will enjoy better resource management, faster decision-making and better performance management (Shang and Seddon, 2000; Staehr, 2012). Kolsage and Ritz (2015) suggests that SMEs tend to adopt ERP when the business gets more complex and the motivation is usually the integration of complex processes to make management control easy and improve centralised control. However, there remains no suggestion from the literature that ERP adoption can help SFBs manage the tacit knowledge of the market for customer loyalty and retention.

1.2. THE OPERATIONAL STRUCTURE

Several studies suggest that SFBs are less professionally structured than non-family Businesses due to the involvement of and trust among the family members (BIS, 2014). Such an unstructured setting makes accountability difficult and may hinder operational performance (Schulze *et al.*, 2001; Gedajlovic *et al.*, 2004; Pazzaglia *et al.*, 2013). However, SFBs may require the experience of experts, to turn towards professionalism but SFBs are not willing to allow external contribution to business (Gedajlovic *et al.*, 2004; Pazzaglia *et al.*, 2013). But due to the fact that top managers in SFBs are often not highly educated or have any managerial expertise outside of the family firm, professionalization becomes difficult (Westhead *et al.*, 2002; BIS, 2014).

It is found that ERP adoption gives a better operational structure to SMEs (Marsh *et al.*, 2014). Ruivo *et al.*, (2012) also adds that a successful ERP adoption leads to improved business efficiencies in SMEs as a result of business process restructuring. It implies that with ERP in place in a SFB, there will be a better operational structure leading to more efficiency and accountability (Xiang *et al.*, 2014). Such restructuring also ensures the dissemination and management of the right business information.

1.3. THE STRATEGIC GOALS

Earlier studies (e.g. Basu, 2004) suggest that prioritising family values in FBs make them more risk averse and unwilling to grow, thereby limiting their economic values. While some later studies (e.g. Sciascia *et al.*, 2012) support earlier literature, others (e.g. Calabrò *et al.*, 2013; Chen, 2011) argued that family Businesses tend to take more risks and are more interested in extending their market reach through internationalisation. However, SFBs are less willing to collaborate with other businesses or seek external help especially if it means losing a level of family control (Mitter *et al.*, 2014; Pukall and Calabro, 2014).

Part of the bid to sustain the family control of business brought about the need for the succession of power from one generation to another (Gilding *et al.*, 2015; Collins *et al.*, 2016; Chen, 2016). As succession involves the transition of the business power from one generation to another, it requires clear and accurate transfer and communication of facts and files (Collins *et al.*, 2016; Joo, 2016). Laforet (2013) argues that despite the genuine interest of SFBs in the succession of power, few of them are able to do so successfully. There is a need for SFBs to find ways to plan for a seamless and successful succession when the time is right.

Studies (Yang and Su, 2009; Benfell, 2013) suggest that SMEs gain strategic benefits such as business growth through ERP adoption. SFBs could gain from such strategic benefit from ERP, especially as the technology still helps sustain the centralised family control of business (Marsh *et al.*, 2014). Also, the better management of resources and information implies that the succession goal of SFBs could become achievable as the technology enhances the communication and transfer of information (Teittinen *et al.* 2012; Marsh *et al.* 2014, Kolsage and Ritz, 2015) across generation. Staehr (2012) among other studies also affirm that ERP supports organisational changes which in SFBs are usually succession of power.

With the potential benefits of ERP to the main characteristics of SFBs identified, the next section looks at the classification of ERP benefits to enable the identification of ERP benefit classes for SFB.

2.0. THE ERP BENEFIT CLASSIFICATION

Using the ERP benefits framework by Shang and Seddon, 2000 as modified by Staehr (2007), the ERP benefits to business as shown below.

BENEFIT DIMENSION	BENEFIT CATEGORIES
1. OPERATIONAL	1.1 Cost reduction 1.2 Cycle time reduction 1.3 Productivity improvement 1.4 Data quality improvement 1.5 Customer services improvement
2. MANAGERIAL	2.1 Better resource management 2.2 Better decision making 2.3 Better performance control
3. STRATEGIC	3.1 Supports current and future business growth plan 3.2 Supports business alliances 3.3 Supports business innovation 3.4 Supports cost leadership 3.5 Supports product differentiation 3.6 Supports external linkages 3.7 Enables world wide expansion 3.8 Enables ebusiness
4. IT INFRASTRUCTURE	4.1 Increased business flexibility 4.2 IT cost reduction 4.3 Increased IT infrastructure capability
5. ORGANIZATIONAL	5.1 Supports business organizational changes 5.2 Facilitate business learning and broaden employee skills 5.3 Empowerment 5.4 Changed culture with a common vision 5.5 Changed employee behaviour with a shifted focus 5.6 Better employee morale and satisfaction

Table 1: The ERP benefit classification framework

However, ERP literature on SMEs has over the years discussed how they benefit from the different categories of the benefits based on their needs (Marsh *et al.*, 2014; Ruivo *et al.*, 2014). The ERP benefits to SFBs are classified below

2.1. THE CLASSIFICATION OF ERP BENEFITS TO SFBS

2.1.1. OPERATIONAL BENEFITS

Although, there is no SFB characteristic evidence from above which suggests that ERP contributes directly to the operations to SFBs. Business process reengineering through ERP (Xiang *et al.*, 2014) could help towards improving SFBs' operational structure (professionalisation) and promote accountability.

2.1.2. STRATEGIC BENEFITS

The SFB characteristics above show that ERP adoption could help SFBs collaborate to benefit from resources that are not available to sustain the business (Ruivo *et al.* 2012). Also, ERP adoption could bring about SFB growth without them worrying about losing family control. It thus means that ERP adoption could help SFBs grow, sustain business and remain in control as desired by the family.

2.1.3. MANAGERIAL BENEFITS

With ERP, the desired centralised management by SFBs is achievable. Also, resources are more accurately managed to enable performance management. Ultimately, decision-making becomes faster and more accurate with real-time availability of business information (Teittinen *et al.*, 2013). However, the management of the SFB's tacit market knowledge remains unclear.

2.1.4. ORGANISATIONAL BENEFITS

With the ERP system able to control business information and resources centrally, it is able supports the easy transition of power across generation (succession). The better management

of resources means there will be an easy and transparent transfer of facts and files needed by the old and new generation of owners (Gilding *et al.*, 2015). However, family legacies and knowledge may be difficult to manage through ERP.

Based on these literature findings, a conceptual ERP benefit framework for SFBs is proposed as shown below.

2.2. THE ERP BENEFIT FRAMEWORK FOR SFBS



Figure 2: THE ERP BENEFIT FRAMEWORK FOR SFBS

The ERP benefit framework for SFBs are significantly smaller than identified generally for businesses and the framework also shows how the benefits are linked to improve SFBs.

3.0. CONCLUSION

As evident from the discussions above, despite the low success tendencies with ERP in SFBs, the technology can be of immense benefit if successfully adopted. It was further confirmed from evidences above that the ERP system benefits all businesses irrespective of business characteristics. It was established through the comparison of the SFB characteristics to ERP benefits that the technology will not only improve SFBs, it will do so while ensuring that the identity of the business as an SFB is maintained. However, it is unclear if the technology can benefit SFBs in terms managing the tacit family and business knowledge required by such businesses.

ERP adoption in SFBs will bring about managerial, operational, strategic and organisational benefits. It can be said based on the findings above that before the perceived benefits of ERP become achievable, there is a need for SFBs to successfully adopt the technology. However, as much as ERP adoption is able to improve SFBs, a professional appearance could disrupt the family trust SFBs enjoy and hence be considered disruptive to the SFB identity.

As this paper shows that ERP adoption is conceptually beneficial to SFBs, the full research explores ERP adoption in SFBs to understand how family involvement impacts its adoption despite the perceived benefits. Such knowledge helps practitioners towards understanding how best SFBs can take advantage of the technology.

3.1. RECOMMENDATIONS FOR FURTHER STUDIES

Further studies need to test the proposed framework contextually as such findings are usually different from the theoretical perception. Also, there is a need for further exploration of the exact operational benefits of ERP to SFBs across different sectors. A major limitation for this study is its conceptual nature and an empirical study will be required to show the family nature of SFBs and establish specific business benefits based on their unique characteristics.

References

Acquaah M. (2016), *Family Business Theories and Sub-Saharan African Family Businesses*, In *Family Businesses in Sub-Saharan Africa*, 9-42, Palgrave Macmillan US

Alderson K. (2015), *Conflict management and resolution in family-owned businesses: A practitioner-focused review*, *Journal of Family Business Management*, 5(2), 140-156

Allart, H. (2015), *Adoption Factors and Implementation Strategies of on-Premise and Cloud Based ERP Systems by SMEs in Thailand*, *Journal submission manual-ASEAN Journal of Management & Innovation*, 1(2)

Alshamaila, Y., Papagiannidis, S., & Li, F. (2012), *Cloud Computing Adoption: An exploratory Study*, *Journal of Enterprise Information Management*, 26(3), 250-275

Basu A. (2004), *Entrepreneurial aspirations among family business owners*, *International Journal*

Bharathi V. and Mandal T. (2015), *Prioritising and ranking critical factors for sustainable cloud ERP adoption in SMEs*, *International Journal of Automation and Logistics*, 1(3), 294–316

BIS (2013), *Focus on Family Businesses*, SME Employers: Department for Business Innovation and Skills, 1-98

BIS (2014), *Research into Family Businesses*, Department for Business Innovation and skills, 172, 1-66

Calabrò, A., Torchia, M., Pukall, T., & Mussolino, D. (2013), *The influence of ownership structure and board strategic involvement on international sales: The moderating effect of family involvement*, *International Business Review*, 22(3), 509-523.

Carney M. (2005), *Corporate governance and competitive advantage in family-controlled firms*, *Entrepreneurship Theory and Practice*, 29, 249-265

Chen Y. (2011), *Overview and analysis of cloud computing research and application*, In *International Conference on E -Business and E –Government (ICEE)*, Shanghai, China, 1436–1439

Chen, Y. H. (2016). *The importance of Partial Succession in Family Businesses.*

Chua, J., Chrisman, J. and Sharma, P. (1999), *Defining the family business by behaviour*, *Entrepreneurship: Theory and Practice*, 23(4), 19-39

Collins, J. D., Worthington, W. J., & Schoen, J. E. (2016), *Family Business CEO Succession: Examining Personal Retirement Expectations*, *Journal of Small Business Strategy*, 26(2), 51.

Davenport T. (1998), *Putting the Enterprise into the Enterprise system*, Harvard Business review, 121-131

Davenport, T. (2000), *Mission Critical: Realizing the Value of Enterprise Systems*, Harvard Business School Press, Boston, MA

De Massis, A., Kotlar, J., Frattini, F., Chrisman, J. J., & Nordqvist, M. (2016), *Family Governance at Work Organizing for New Product Development in Family SMEs*, Family Business Review, 0894486515622722

Dessi C., Ng W., Floris M. and Cabras S., (2014), *How small family-owned businesses may compete with retail superstores*, Journal of Small Business and Enterprise Development, 21(4), 668 - 689

Dey, P. K., Clegg, B., & Cheffi, W. (2013), *Risk management in enterprise resource planning implementation: a new risk assessment framework*, Production Planning & Control, 24(1), 1-14

Farkas, G. (2016), *Agent-Principal Problem, Stewardship Theory And Behavioural Agency Mode*, In The Explanation Of Family Business Performance In Conference Proceedings Dokbat. 135

Gedajlovic, E., Lubatkin, M. H., & Schulze, W. S. (2004), *Crossing the threshold from founder management to professional management: a governance perspective*, Journal of Management Studies, 41, 899-912

Gilding, M., Gregory, S., & Cosson, B. (2015), *Motives and outcomes in family business succession planning*. *Entrepreneurship Theory and Practice*, 39(2), 299-312.

Griffiths M., Heinze A. and Ofoegbu A. (2013), *The real SAP® Business One cost: a case study of ERP adoption in an SME*, Int. Journal of Management Practice, 6(2), 199-215

Habbershon, T. G., & Williams, M. L. (1999), *A resource-based framework for assessing the strategic advantages of family firms*, Family business review, 12(1), 1-25

Haddara M. and Elragal A. (2013), *ERP lifecycle: A retirement case study*, Information Resource Management Journal, 26(1), 1-11

Johansson B., Alajbegovic A., Alexopoulo V. and Desalermos, A (2015), *Cloud-ERP adoption opportunities and concerns: The role of organisational size*, In 48th Hawaii International Conference on System Sciences (HICISS), 4211-4219

Joo, S. H. S. (2016), *Common strategies in strategic paradigm of succession in small and medium-sized Korean family businesses*, Doctoral dissertation, ALLIANT INTERNATIONAL UNIVERSITY.

Kellermanns, F. W., Eddleston, K. A., Sarathy, R., & Murphy, F. (2012), *Innovativeness in family firms: A family influence perspective*, *Small Business Economics*, 38(1), 85-101

Klaus, Helmut, Rosemann, Michael, & Gable, Guy G. (2000), *What is ERP?*, Information Systems Frontiers, 2(2), 141, 162

Kramer F. et al. (2016), *ERP-Adoption within SMEs-Challenging the existing Body of Knowledge with a Recent Case*, Multi-dimensional view on Enterprise Information Systems, 12, 41-54

Laforet, S. (2013), *Innovation characteristics of young and old family-owned businesses*, Journal of Small Business and Enterprise Development, 20(1), 204-224

Lewandowski, J., Salako, A. O., & Garcia-Perez, A. (2013), SaaS enterprise resource planning systems: challenges of their adoption in SMEs, *In e-Business Engineering (ICEBE), IEEE 10th International Conference*, 56-61. IEEE

Markus, M. and Tanis, C. (2000), *The enterprise system experience – from adoption to success*, in Zmud, R.W. (Ed.), Framing the Domains of IT Management: Projecting the Future through the Past, *Pinnaflex Educational Resources*, Cincinnati, OH, pp. 173-207

Miller, D., & Breton-Miller, L. (2006), *Family governance and firm performance: Agency, stewardship, and capabilities*, Family business review, 19(1), 73-87

Mitter, C., Duller, C., Feldbauer-Durstmüller, B., & Kraus, S. (2014), *Internationalization of family firms: the effect of ownership and governance*, Review of Managerial Science, 8(1), 1-28

Nosé L., Korunka C., Frank H. and Danes S. (2015), *Decreasing the Effects of Relationship Conflict on Family Businesses The Moderating Role of Family Climate*, Journal of Family Issues, 0192513X15573869

Pazzaglia, F., Mengoli, S., & Sapienza, E. (2013), *Earnings quality in acquired and nonacquired family firms: A socioemotional wealth perspective*, Family Business Review, 26(4), 374-386

Pukall, Thilo J., and Andrea Calabrò (2014), *The internationalization of family firms: A critical review and integrative model*, Family Business Review, 27(2), 103-125

PWC (2012), *Family firm: A resilient model for the 21st century*, PWC family business survey

PWC (2014), *The family factor: professionalising the UK family firms*, PWC family business survey

Ruivo P., Oliveira T. and Neto M. (2012), *ERP use and value: Portuguese and Spanish SMEs*, Industrial Management & Data Systems, 112(7), 1008 – 1025

Ruivo, P., Oliveira, T., Johansson, B., & Neto, M. (2014), *Empirical Study on Differences and Similarities in ERP Usage Amongst European SMEs*, In Information Systems for Small and Medium-sized Enterprises, 199-212, Springer Berlin Heidelberg

Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001), *Agency relationships in family firms: Theory and evidence*, *Organization science*, 12(2), 99-116

Sciascia, S., Mazzola, P., Astrachan, J. H., & Pieper, T. M. (2012), *The role of family ownership in international entrepreneurship: Exploring nonlinear effects*. *Small Business Economics*, 38(1), 15-31

Shang, S. and Seddon, P. (2000), *A comprehensive framework for classifying the benefits of ERP systems*, paper presented at the Americas Conference on Information Systems, Long Beach, CA

Sharma P. (2004), *An overview of the field of family business studies: Current status and directions for the future*, *Family Business Review*, 17(1), 1–36

Sirmon, D. G., & Hitt, M. A. (2003), *Managing resources: Linking unique resources, management, and wealth creation in family firms*, *Entrepreneurship theory and practice*, 27(4), 339-358

Songini, L., & Gnan, L. (2015), *Family Involvement and Agency Cost Control Mechanisms in Family Small and Medium-Sized Enterprises*, *Journal of Small Business Management*, 53(3), 748-779

Staeher, L. (2007), *Assessing business benefits from ERP systems: an improved ERP benefits framework*, *ICIS 2007 Proceedings*, 36.

Staeher, L., Shanks, G., & Seddon, P. B. (2012), *An explanatory framework for achieving business benefits from ERP systems*, *Journal of the Association for Information Systems*, 13(6), 424.

Stewart A. and Hitt M. (2012), *Why can't a family business be more like a nonfamily business?: Modes of professionalization in family firms*, *Family Business Review*, 25, 58- 86

Teittinen, H., Pellinen, J., & Järvenpää, M. (2013), *ERP in action—Challenges and benefits for management control in SME context*, *International Journal of Accounting Information Systems*, 14(4), 278-296

Uwizeyemungu, S., & Raymond, L. (2012), *Impact of an ERP system's capabilities upon the realisation of its business value: a resource-based perspective*, *Information Technology and Management*, 13(2), 69-90