



EFFECTUATION AND THE SOCIAL ENTREPRENEURSHIP: AN EMPIRICAL STUDY OF THE RELATIONSHIP BETWEEN ADOPTING THE PRINCIPLES OF EFFECTUAL LOGIC AND SOCIAL ENTERPRISE'S PERFORMANCE IN EGYPT

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ABSTRACT: *In Egypt, social enterprises are important to confront some of the major challenges facing the country. Nevertheless, they face several obstacles that hinder their development, social impact, and performance. In 2001, Saravathy developed effectuation theory which acknowledges how the decision-making process, action and implementation are practiced by entrepreneurs in an unpredicted and dynamic environment. Hence, effectuation can be suggested as a possible resort to improve social enterprises' performance. Thus, the objective of the research is to investigate whether effective logic principles affect social enterprises' financial, market, and innovative performance in Egypt. An online survey was shared via email with social entrepreneurs identified using snow-ball sampling. Results showed that the performance of social enterprises in Egypt is average, and in some instances, lesser than average, especially financial and innovation performance, while they moderately apply effectuation principles as they perform their regular activities.*

KEYWORDS: Social entrepreneurship, Effectuation, Effectual Logic, Performance.



INTRODUCTION

It is becoming increasingly evident that the common business practices and the existing modes of production and consumption are the root cause of the environmental, social, and economic challenges that the world is currently facing. As most businesses are merely concerned about maximization of profits, calls for a fundamentally different approach to conducting economic activities are being heard more often (Vujasinović, Lipenkova & Orlando, 2019). One of the models that has been introduced as an alternative to business-as-usual was social entrepreneurship (SE), which is considered as a key driver of change and one of the most prominent, receiving notable attention from the general public, researchers and policy makers (Canestrino et al., 2020; Ghandi & Raina, 2018). Although there is no consensus as to what social entrepreneurship is nor what it entails, there is however an agreement that it could make a difference in the world since social entrepreneurs found enterprises to solve social problems and create benefits to different individuals and communities. Therefore, social entrepreneurship is considered to be an important tool to tackle social challenges (Sekliuckiene & Kisielius, 2015).

Egypt was not an exception; the country has witnessed an increasing interest in social entrepreneurship and the sector has been tremendously growing (Seda & Ismail, 2019). This has been coupled with an establishment of some of Egypt's most prominent non-profit organizations like Ashoka Arab World, Nahdet el-Mahrousa, Misr el-Khair, and others, who took it on them to "support for-profit development initiatives in preference to one-way philanthropic donations" (Fakoussa, O'Leary & Salem, 2020, p. 1); which contributed positively to the creation of more social enterprises in the fields of healthcare, education, construction, recycling and upcycling and technology, fields that were known to be exclusive to business entrepreneurs. However, Egyptian social entrepreneurs face multiple challenges that hinder their performance and undermine their impact which have slowed down their financial performance (ElAbd, 2012) and its social effectiveness. These challenges include, legal and regulatory aspects, institutional and operational support, access to finance and borrowing, challenges embedded in cultural norms (Seda & Ismail, 2019; Ghalwash, Tolba & Ismail, 2017; Abdou & Ebrashi, 2015) and have put social entrepreneurs under pressures stemming from uncertainties and risks.

In 2001, Saravathy developed the effectuation theory which acknowledges how the decision-making process of entrepreneurs differs in an unpredicted environment (Read & Sarasvathy, 2005), using five principles, which are design, means, partnership, affordable loss, and leverage contingency (Read et al., 2008). Chandler et al. (2011) categorized the effectual principles into four measurable sub-dimensions, namely; experimentation, affordable loss, flexibility, and pre-commitments. Each sub-dimension explores how entrepreneurs think, act, and implement in a dynamic and uncertain environment.

Since the effectuation theory emphasizes the importance of using transformational tactics, in which entrepreneurs go through a process in developing their enterprises in ways that have never been discovered before; while the social enterprises provide a promising sector to focus on, as several challenges hinder enterprises' performance, especially in developing countries like Egypt, the objective of this research is, thus, to investigate the impact of the effectual logic principles, which are affordable loss, flexibility, pre-commitment, and experimentation on social enterprises' financial, market, and innovative performance in Egypt.



Multiple studies have investigated the relationship between effectuation theory and performance, yet very few researches have considered the social enterprises' performances. As a response to the different calls for new theoretical and practical contributions in the field of SE (Canestrino et al., 2020), the first contribution of the current research is adding to the social entrepreneurship literature through exploring effectual logic by questioning how it impacts the social enterprises' performance. Moreover, since the effectuation theory is still in a nascent phase of development (Ruiz-Jiménez et al., 2021), the current research advances effectuation research through utilizing it in an under-studied context. Moreover, Almhamad et al. (2022) stated that between 2010 and 2020, the total research on social entrepreneurship in the Middle East region has reached 80 items, whereas Egypt's share is 12% or equivalent to 10 items only, indicating limited academic research in this area, which was a conclusion reached by Kirby and Ibrahim in 2011, eleven years earlier, suggesting that the topic has not received the proper attention from academics despite its seemingly importance. Hence the second contribution of the current study is adding to SE's literature in Egypt. The study, as well, has a practical amplification to social entrepreneurs; since the Egyptian business environment is classified as dynamic which might have an impact on the performance of their enterprises, application of effectual logic can contribute to the social enterprises' performance through providing some recommendations.

This study is structured as follows: following this introduction, the researcher introduces the theoretical framework, concluding with the study question. Then the research methodology is presented followed by the results obtained. Finally, findings and the main conclusions drawn from them are presented.

LITERATURE /THEORETICAL UNDERPINNING

Social Entrepreneurship, Concept, and Performance

Social entrepreneurship has been the focus of attention due to its impact and distinctiveness from both the business entities and the standard non-profit organizations. It combines different components of the "social purpose, the market orientation, and financial-performance standards of the business" (Galera and Borzaga, 2009, p. 212). However, throughout the literature, social entrepreneurship has not been universally defined (Forouharfar, Rowshan & Salarzahi, 2018; Hayllar & Wettenhall, 2013; Galera & Borzaga, 2009), due to its complex nature of oscillating between the different common business practices and the social needs that have been disregarded by those businesses. It encounters multi-dimensional layers of value creation, where core entrepreneurial principles of financial feasibility and the sense of citizenship that organizations hoped to fulfill are combined (Jamali et al., 2016). Based on this, one of the definitions that describes this nature was introduced by Tracey and Phillips (2007). They regard social entrepreneurship as the "entrepreneurship that is concerned with enterprise for a social purpose and involves building organizations that have the capacity to be both commercially viable and socially constructive. It requires social entrepreneurs to identify and exploit market opportunities to develop products and services that achieve social ends, or to generate surpluses that can be reinvested in a social project" (Tracey & Phillips, 2007, pp. 265-266). It is the utilization of innovation to solve social problems (Sivathanu & Bhise, 2013)



However, due to this distinct nature, social entrepreneurs face several challenges that restrain their performance, impede their growth, and hinder their ability to deliver greater benefits. One of the challenges is the difficulty to measure the social value, which is the core of social entrepreneurship, hence it becomes difficult to commentate it to others (Seda & Ismail, 2019) impacting their access to funding opportunities, especially when they are attempting to grow their businesses. Another challenge is the difficulty of balancing commercial growth and social impact across all business functions (Davies, Haugh & Chambers, 2019) which might negatively impact the cost structure of social enterprises. Getting access to skilled workers is another problematic area for social entrepreneurs, due to resource constraints (Sivathanu and Bhise, 2013). Jamali et al. (2016) counted further challenges facing social entrepreneurs in the Arab world in the areas of financial and human resources, lack of public awareness of social entrepreneurship, cultural issues, stockholders buy-in, lack of support organization for social enterprises, inability to build partnerships in addition to business and innovation challenges.

In Egypt, where there is an increasing interest in the social entrepreneurship field due to the importance of such enterprises in complementing the government's efforts and filling the gaps that were not tackled by business enterprises, social entrepreneurs face multi-layered challenges. El Abd (2012) acknowledged that the three leading obstacles were as follows; regulation and policy compliance, limited to no institutional, operational, and financial support, and inaccessible technical support. As mentioned by Visser (2011), the understanding of both government and society of social entrepreneurship is limited, where entrepreneurial activity is culturally challenged by the society as having a stable income with a well-established career path. Furthermore, the study concluded that resources availability, networking and accessibility to information pose further challenges (El Abd, 2012). Lack of understanding the nature of social entrepreneurship hence lack of laws recognizing their special needs (Abdou & Ebrashi, 2015) might "prohibit SEs from offering comprehensive services to customers, affecting the SE's financial sustainability prospects too" (Abdou & Ebrashi, 2015, p. 47), slowing down their financial performance, which in turn negatively impact their access to skilled workers, the required resources for their function, innovative solutions, and markets.

Due to these barriers and challenges, performance has been negatively impacted. Siraj (2012) acknowledges that the social entrepreneurship activities have failed or have not met their performance target. Performance has been dominating the business literature, where it has been identified as an essential element for entrepreneurs to assess the designed strategy across their targeted objectives. It is usually described as the organization's ability to capture value from its activities (Bhattarai, Kwong & Tasavori, 2019), utilizing effectively and efficiently its resources. Venkatranan and Ramanujam (1986) divided performance into two components: financial performance and operational performance. In contrast, Richard et al. (2009) divided business performance into three measures; "financial performance, market performance and shareholders return" (p. 3).

There are several studies that have explored performance measures (Saura, 2021; Kiviluoto, 2015; Alexander et al., 2013). However, these studies explored profitable firms, which resulted in a few research that tackles performance of social enterprises. Thus, the missing dimension is social effectiveness that refers to meeting the social needs effectively through the addressed mission by the social enterprise (Bagnoli & Megali, 2009). As a result, Bagnoli and Megali (2009) developed a framework for measuring social enterprises' performance. The framework highlights social effectiveness through identification of four measures: inputs, outputs, outcomes, and impact. Each measure evaluates the effectiveness of the social enterprise. First,



inputs evaluate the degree of which enterprise is socially responsible in using resources. Second, outputs measure the productivity level through the activity carried out by the social enterprise. Third component of social effectiveness is the degree of the positive effects towards the targeted recipients. It assesses the customers' satisfaction towards the undertaken activities. Lastly, the contribution of the social enterprise towards the community's well-being. Maletič, Gomišček and Maletič (2021) believe that innovation performance is an important non-financial performance measure; hence should be considered while tackling the SE's performance due to the different challenges that are facing social enterprises. Innovation performance as defined by Caulier-Grice et al. (2012) are "new solutions that simultaneously meet a social need and lead to new or improved capabilities and relationships" (p. 18).

Effectuation Theory

As an inspiration of several thought leaders' concepts, Knight's concept of unpredicted future (1921), March's uncertain goal setting theory that is crucial element in organizational decision making (1982), and Weick's concept of decision makers who act out in their environment (1979), Sarasvathy developed the effectuation theory in 2001 that never changed since then (Nienhuis, 2010), and has over the years gained popularity to the extent that it has become one of the main theories in entrepreneurship research (Alvarez, Audretsch & Link, 2016). According to Sarasvathy (2001), effectuation theory recognizes the uncertainty within the entrepreneurial context; thus it presents a model of entrepreneurial decision-making focused on controlling the uncertain future rather than attempting to predict it where developing means into coherent goals for building possible future are the essence of effectuation logic (McKelvie et al., 2013), unlike the causation logic which reinforces the individual's abilities to predict the future, hence control it.

Owusu (2013) found out that entrepreneurs under uncertainty develop a different discussion logic that is dissimilar to the traditional model of entrepreneurship thinking process, i.e. causal. Sarasvathy (2001) claimed that causal reasoning starts with predetermined goal and given set of means, while looking for the greatest possibility to reach the goal. On the other hand, the effectual reasoning does not start with a predetermined goal, it starts with given set of means in which goals appear through the people involved and interacted within the process in an unexpected way. Moreover, entrepreneurs start with three elements to define means: "Who they are - their traits, tastes and abilities"; "What they know - their education, training, expertise, and experiences"; and "Whom they know - their social and professional networks" (Sarasvathy, 2001, p. 3).

The theory built on five core principles; "Means, Affordable loss, Leverage Contingency, Design and Partnership" (Read et al., 2008, p.576). Therefore, the first principle states that entrepreneurs start with what they have, or as Sarasvathy (2009) described it as "Bird-in-hand" principle which stresses on developing a newly introduced idea with the current means rather than exploring new methods for achieving the provided goals. Hence, entrepreneurs start acting without detailed and complicated planning, where plans can be reformed or redirected through daily interaction with others.

Entrepreneurs after starting with their means, they now imagine several chances that might occur due to the utilization of those. Thus comes the affordable loss, which is the second principle which suggests that professional entrepreneurs think of what they can bear to lose to minimize risk involved (McKelvie et. al., 2013). Third, Leverage contingency suggests that



entrepreneurs twist the bad news or surprises into new opportunities. Sarasvathy (2001) acknowledged that entrepreneurs reach out market with minimum resources, and as shown in her findings, expert entrepreneurs “open themselves to surprises” and would take another step in selling an idea of a product to the nearest potential market. Then comes the fourth principle of effectuation, partnership, or “Patchwork Quilt”, assuming that expert entrepreneurs create a pool of stakeholders to create new means. As Sarasvathy (2001) highlighted that expert entrepreneurs will not have the most amazing idea of a product and try to find the most experienced individual to be involved in the process; instead they are expert in recruiting individuals to be on board and ask them what they would like to do with their product idea, where entrepreneurs are flexible to change their vision as long stakeholders are willing to commit (Sarasvathy, 2001). The fifth principle, which is design, or control versus predict, suggests that expert entrepreneurs control their future rather than predict it (Nienhuis, 2010).

To complement the work of Sarasvathy and several other researchers in measuring effectual approach, Chandler et al. (2011) have developed measurable principles, which are driven from the five principles of effectuation, which are experimentation, affordable loss, flexibility, and pre-commitments. First, experimentation, where entrepreneurs attempt to identify and establish the most suitable strategy in the marketplace using a trial-and-error methodology. Second, the affordable loss, focuses on how losses could be contained. Third sub-dimension, flexibility, is practiced by expert entrepreneurs to avoid routines and procedures, while exploring new opportunities. Fourth, pre-commitment, which stress on the importance of collaboration and presume that establishing alliances with stakeholders will eventually lead the entrepreneurs controlling the future (Chandler et al. ,2011)

With the increasing popularity of effectuation in the entrepreneurship literature, scholars attempted to explore its impact within different entrepreneurial settings. One of research steams was directed towards the relationship between effectuation and performance; for example, Shirokova et al., (2021), Roach, Ryman and Makani, (2016); Read et al. (2008); etc.. and a positive relationship between the two variables was found, where the four sub-constructs supported new venture performance. The discussion concerning the field of social entrepreneurship has shown how effectuation approaches can be combined to create social value (Servantie and Rispal, 2020). However, there was no evidence of any research study that has investigated the impact of effectual logic on social enterprises’ performance in the Middle East and specifically, in Egypt. Thus, the current research aims at answering the following question: Can the principles of effectual entrepreneurship improve the Egyptian social enterprise's performance? This research is a starting point for empowering social enterprises and could provide clarity to Egyptian social entrepreneurs in leveraging the limited resources available to them.

METHODOLOGY

Effectuation theory emphasizes the importance of using transformational tactics, in which entrepreneurs go through a process of developing their enterprises in ways that have never been discovered before utilizing the limited resources available to them. On the other hand, the social enterprises in Egypt call for special attention due to the several challenges hindering its performance despite the different approaches that have been introduced to support it. Thus, the objective of the current research is to investigate the impact of the effectuation principles which



are affordable loss, flexibility, pre-commitment, and experimentation on Egyptian social enterprises' financial, market, and innovative performance to provide recommendations to assist social entrepreneurs in leveraging their impact.

Population and Sample

As there are no official statistics of social enterprises in Egypt (Ramadan, 2021) in addition to difficulties in accessing their data and contacts, the snowball sampling design was used. According to (Waters, 2015): "snowball sampling is generally seen as a highly effective sampling technique that allows for the study of difficult to reach or 'hidden' populations" (p. 367) and depends on selecting a sample by using network (Kumar, 2011). Thus, three main organizations known for their efforts in supporting social entrepreneurs were contacted to assess in identifying several social entrepreneurs. After information were collected from those identified social entrepreneurs, each entrepreneur was asked to further identify other members from their network. This process was carried on until the research saturation point has been reached, which is the reasonable point when the researcher might feel assured that any further data collection wouldn't yield different results (Faulkner and Trotter, 2017), especially the population was not well-defined in terms of size; additionally same entrepreneurs were repeatedly identified. This process has yielded an overall thirty-five social entrepreneurs at different stages of their journey.

Data collection

The research has been conducted based on secondary and primary data collection. The secondary data collection supplements the study with data that have experimented by other researchers in the entrepreneurship literature. Therefore, several relevant information, qualitative and quantitative data were collected from books, articles, and academic journals to better understand the research problem and to further identify the research gap.

On the other hand, the primary data provided the research with the relevant information that allowed a strong inference to be made. Since the structured questionnaires are important data collection strategy (Hox and Boeije, 2005) the researcher utilized it to collect the data from the informants. The researcher followed the recommendations of many researchers (for example, Menon and Muraleedharan, 2020; Blumenberg et al., 2019; Ebert et al., 2018) and created an online survey that was shared via e-mail and followed it by reminders, which helped in reaching out the studied sample easily. However, 30 entrepreneurs responded, with two incomplete questionnaires, that were disregarded from the sample, which sums up a total of 28 entrepreneurs, who own enterprises that can be classified as social; hence the response rate was 80%, which is an acceptable rate (McPeake, Bateson and O'Neill, 2014).

Questionnaire design

The online questionnaire was divided into two main sections. The first section evaluated effectual logic, using 14 questions adopted from Chandler et al. (2011), while the second section included questions related to social enterprise's financial performance adopted from Powell (1995), market performance that were adapted from Baked and Sinkula (1999) and innovation performance adopted from Mthanti (2012). Table 1 presents the questionnaire structure. Each question in the online questionnaire was rated on a 5-point Likert scale, from "totally disagree" to "totally agree". Cronbach's Alpha have been calculated for each principle to ensure that questions adopted for the research are fit for purpose. The values ranged between



0.7 and 0.87, hence all questions were included in the analysis since a value of 0.70 is seen as a sufficient measure of reliability or internal consistency of an instrument (Taber, 2018).

Table 1: Questionnaire Structure

Construct	Sub-dimensions	Developed	Cronbach's Alpha
Effectuation (14 questions)	Experimentation (4 questions)	Chandler et al. (2011)	0.8
	Affordable Loss (3 questions)		0.73
	Flexibility (4 questions)		0.78
	Pre-commitments (3 questions)		0.84
Performance (12 questions)	Financial Performance (5 questions)	Based on the work of: Powell (1995) Baked and Sinkula (1999) Mthanti (2012)	0.82
	Market Performance (3 questions)		0.87
	Innovation Performance (4 questions)		0.7

RESULTS AND DISCUSSION

Effectuation principles

Table 2 presents the means of the sub-dimensions of the principles of Effectuation practiced by Egyptian social entrepreneurs. The first one is experimentation, which is an important aspect in the innovation processes. Although most responses were above the average on the 5 Likert scale, but it remains moderate except for one sub-dimension which is “The product/service that our company now provides is substantially different than we first imagined”, it indicates that most respondents use experimentation throughout their business practices and hence change the course of their action, even after starting their business. In terms of the affordable loss, most of the respondents were above average yet remains moderate, which reflects risk-aversion and precautions. This relates to the literature that expert entrepreneurs use affordable loss by thinking of what they can bear to lose to minimize risk involved (Duening, Shepherd and Czaplewski, 2012). In terms of flexibility, table 3 shows that answers were above 3 (except the last item), this indicates that social entrepreneurs are open to modify in response to altered circumstances, which was clear from their response to the last item in experimentation, when they agreed that what they offer now differs than they started. This behavior complies with the connotation of flexibility, that they deal with uncertainty by treating unexpected events as an opportunity to expand their businesses (Pacho and Mushi. 2020). However, fourth question in the flexibility dimension was unexpected, as it contradicts that enterprises adapt to flexible approaches throughout their business practices. The last principle the Pre-Commitments, table



3 shows that the sample, on average, rate above moderate which suggests that social enterprises build strong relationship with stakeholders to enrich their business, which is an important leverage to innovation.

Table 2: Effectuation Principles Practiced by Egyptian Social Entrepreneurs

Sub-dimensions	N	Mean
Experimentation		
The product/service that our company now provides is essentially the same as originally conceptualised	28	2.71
We have been experimented with different products and/or business models	28	3.43
When launching a new product or service, our company tries a number of different approaches	28	2.57
The product/service that our company now provides is substantially different than we first imagined	28	4.21
Affordable Loss		
When launching a new product/service, my company is careful to invest only the resources we can afford to lose	28	2.79
When launching a new product/service, my company is careful not to risk more money than we are willing to lose with our initial idea.	28	3
When launching a new product/service, we are careful to invest only so much money that our company will afford	28	3.21
Flexibility		
Our company allows the business to evolve as opportunities emerge	28	3.57
Our company has adapted what we are doing to the resources we have	28	3.51
Our company is flexible and takes advantage of opportunities as they arise	28	3.64
Our company has avoided courses of action that restrict our flexibility and adaptability	28	2.86
Pre-Commitments		
Our company has a substantial number of agreements with customers, suppliers and other organisations	28	3.86
Our company uses pre-commitments from customers and suppliers as often as possible	28	3
At our company, we talk with people we know to enlist their support in developing the business	28	4



The Social enterprises' performance

Table 3 presents the means and standard deviations of the three aspects of performance of the sample. Overall, social enterprises are not performing up to their potential. Since measuring and investigating the financial is one of the most critical challenges faced by enterprises (Bojnec and Žampa, 2021) and it entails high level of confidentiality, the researcher asked respondents to compare their financial performance to their expectations over the years and to the one of other companies in the same field. Results show that the performance indicators were low especially when compared to other companies; moreover, their profitability was low, indicating that they are not able to capitalize on their resources to generate enough revenues and support their activities. In terms of market performance, results show a moderate performance, however, market share compared to other companies in the same field is the lowest among other indicators. The last performance item was innovation; according to table 4, results show that performance can be described as moderate-to low, which might jeopardize the competitive advantage of these enterprises.

Table 3 Performance indicators of Social Enterprises

Performance Items	Count	Mean	SD
Financial Performance			
Over the past 5 years, our financial performance has exceeded our expectations	28	2.36	0.75
Over the past 5 years, our financial performance has exceeded that of other companies in the same field	28	2.14	0.9
Over the past 5 years, we have been more profitable than other companies in the same field have been	28	2.07	1
Over the past 5 years, our revenue (sales) growth has exceeded our expectations	28	2.36	1.2
Over the past 5 years, our revenue growth rate has exceeded that of other companies in the same field	28	1.9	1.46
Market Performance			
Over the past 5 years, our customer satisfaction has been outstanding	28	3.43	0.92
Over the past 5 years, our customer satisfaction has been exceeded that of other companies in the same field	28	2.93	1.05
Last year, our market share was much higher than that of other companies in the same field	28	2.29	1.06
Innovation Performance			
Our company is better at introducing new products and services to the market than other companies in the same field	28	2.78	1.1
Last year, the percentage of our new products in the existing product portfolio exceeded that of other companies in the same field	28	2.4	1.14



We have innovations under intellectual property protection	28	1.57	1.03
Over the last year, we have introduced innovations for work processes and methods	28	2.86	0.84

Effectuation and Performance

Since the research aims at investigating the relationship between effectuation and performance and to test the hypothesis multiple statistical tests were conducted. Table 4 presents the outcome of the correlation test. It shows insignificant level of correlation ($0.407 > 0.05$), indicating that no statistically proven significant relationship between effectuation and social enterprise's performance. Which contradicts the findings of different researchers whose results confirmed a relationship with performance, for example Shirokova et al., (2021). However, effectuation is context-based (Chen, Liu and Chen, 2021), hence its impact on performance is contingent on different factors, including the industry, sector, organizational factors, operations mode etc.. Such factors might have led to the absence of relationship between the social enterprise performance and effectuation.

Table 4: Correlation between Effectuation and Performance

Correlations			
		Effectuation	Performance
Effectuation	Pearson Correlation	1	.163
	Sig. (2-tailed)		.407
	N	28	28
Performance	Pearson Correlation	.163	1
	Sig. (2-tailed)	.407	
	N	28	28

To further explore the impact of effectuation, the sub-dimensions were utilized and performance was divided in to financial, market and innovation. To start with, a regression analysis considering the impact of sub-dimensions and financial performance was run, and results is introduced in Table 5. Results show that some of the sub-dimension of effectuation and financial performance were significant as $p < 0.05$.

**Table 5: Regression Analysis between Effectuation and Financial Performance**

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	25.925	15.487		1.674	.109
	Experimentation1	.240	.323	.089	.743	.466
	Affordableloss1	-1.788	.458	-.784	-3.905	.001
	Flexibility1	-1.943	.650	-.729	-2.987	.007
	precommitment1	3.641	.625	1.302	5.826	.000

a. Dependent Variable: Financial1

Affordable loss principle hypothesizes that entrepreneurs think of what they can bear to lose and eventually the enterprise will financially perform better. According to Dew et al. (2009) entrepreneurs, who use affordable loss approach, tend to lose less than entrepreneurs who use entrepreneurial approaches based on prediction, because when an entrepreneur applies the affordable loss principle, risk is managed by considering the worst-case scenario while carefully evaluating the new opportunity (Ruiz-Jiménez et al., 2021) availing opportunities for improved performance in the future. Hence the results comply with the previous studies. Another significant impact is produced by pre-commitments, which is the methodology used by expert entrepreneurs in contorting the future through developing strategic alliances. The significant relationship between pre-commitment and financial performance confirms that building relationships with those stakeholders who show and demonstrate commitments towards an enterprise is a necessity for the success and survival, especially social enterprises. This complies with the findings of (Eyana, Masurel, and Paas, 2017), who confirmed that pre-commitment was a positive predictor of profitability and financial performance.

Another interesting finding, the results showed a significant contribution of flexibility to the financial performance ($p > 0.05$) and a lack of it between experimentation and financial performance ($p > 0.05$). Those two sub-dimensions are entwined since experimentation is based on trial-and-error; a thing that requires a degree of flexibility. The later result contradicts the findings of (Deligianni, Voudouris, and Lioukas, 2017), that confirmed the positive impact of those two sub-dimensions.

Moving to market performance, The ANOVA table shows significant level between effectuation and market performance ($p < 0.05$) (Table 6). However, when investigating each sub-dimension, only pre-commitment showed statistically significant contribution to the market performance, as having strategic alliances and partnerships with stakeholder, such as suppliers, customers, and employees, are vital to shape the business processes, will impact the opportunities (markets) that the enterprise might capitalize on. However, the insignificant relationship contradicts the findings of Chandler et al. (2011), for example, who acknowledged that entrepreneurs, who uses effectual approach, try different methodologies and techniques in the marketplace through experimentation, which eventually impacts the customers and enhance the market performance of the social enterprise compared to other companies in the market. Moreover, the insignificant correlation between flexibility and market performance contradicts with the literature, as flexibility suggests that expert entrepreneurs “open themselves to



surprises” and would take another step in selling an idea of a product to the nearest potential market.

Table 6: Regression between Effectuation and Market Performance

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.528	4	17.132	4.383	.009 ^b
	Residual	89.900	23	3.909		
	Total	158.429	27			

a. Dependent Variable: marketperformance

b. Predictors: (Constant), Precommittment, AffordableLoss, Experimentation, Flexibility

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.343	3.697		-.093	.927
	Experimentation	.326	.163	.337	2.004	.057
	AffordableLoss	.009	.110	.014	.081	.936
	Flexibility	-.001	.097	-.003	-.015	.988
	Precommittment	.517	.178	.485	2.902	.008

a. Dependent Variable: marketperformance

Moving to the innovation performance; table 7 shows an insignificant relationship between all the sub dimensions of effectuation and Innovation performance, which contradicts findings of many scholars who advocated the effectual mind as way to overcome innovation barriers (Szambelan, Jiang and Mauer, 2020), and to positively mediate innovation orientation and product/service innovation leading to increased firm performance (Roach, Ryman and Makani, 2016).

**Table 7: Regression between Effectuation and Innovation Performance**

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.637	4	21.909	2.117	.111 ^b
	Residual	238.077	23	10.351		
	Total	325.714	27			

a. Dependent Variable: InnovationPerformance

b. Predictors: (Constant), Precommitment, AffordableLoss, Experimentation, Flexibility

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.754	6.016		2.619	.015
	Experimentation	.239	.265	.172	.902	.377
	AffordableLoss	-.354	.179	-.385	-1.984	.059
	Flexibility	-.187	.157	-.240	-1.190	.246
	Precommitment	.400	.290	.262	1.381	.181

a. Dependent Variable: InnovationPerformance

Implications to Research and Practice

The Findings of the study emphasize the importance of adopting effectual principles by social enterprises to enhance their performance. Although the relationship between effectuation and performance has been proven before, but the context introduced in the current study is under investigated. The findings confirm that effectuation can be utilized by enterprises driven either by social cause or profit. In fact, due to the limited resources available to the social enterprises in Egypt and the constrained financial performance, adopting the effectual thinking might be an effective way to enable entrepreneurs manage their decisions especially when deciding which project to be involved in based on what they can afford to lose and accept risks associated with it. Moreover, applying control-based strategies, for example, the affordable loss, might help them keep the losses under control and to shift their attentions and efforts towards new opportunity.

Another important implication to social entrepreneurs in Egypt is the importance of building networks and strategic alliances. Being an effectual entrepreneur implies that entrepreneurs work through their means at hand, one of which is whom they know. According to (Roach, Ryman and Makani, 2016) “partnership in the context of effectuation involves working together to share in both the risk and return from the innovation’s success” (p.221). This will



enable them to mitigate risks and provide them with access to opportunities, legitimacy, and resources; hence enable them to function and fulfill their duties towards their stakeholders. Moreover, utilizing the concept of affordable enables entrepreneurs to proactively assume risks associated with their functions, hence plan for it ahead of time. Sharing such plans and actions with stakeholders is believed to have a positive impact on stakeholders.

Furthermore, adopting experimentation and flexibility is important for innovation. Essentially, social entrepreneurs seek business solutions to social problems, and in doing so, they face multi-layered challenges, hence fostering innovation is a necessity for both delivering the value and overcoming challenges. The trial-and-error embedded in the experimentation allows entrepreneurs to create opportunities in an innovative way. And for this to happen flexibility in structures, routines and processes is required to implement innovation activities. This implies that if Egyptian social entrepreneurs are to be innovative while attempting to solve social problems; they are required to allow for a high degree of flexibility and experimentation.

CONCLUSIONS

Within the Egyptian context the social enterprises can be considered as a key player to confront many of the major challenges the country has been witnessing over the years. One way to look at social enterprise is “as an entrepreneurial organization that focuses on achieving wider social, environmental, or community objectives” (Davies, Haugh and Chambers, 2019, p. 1616). For such an impact, there has been an increase in the number of social enterprises backed up by supporting organizations who provided financial and non-financial services to social Egyptian social entrepreneurs to help them survive and succeed. Nevertheless, the social enterprises face several obstacles that hinder their development, social impact and performance.

On the other hand, effectuation has been getting a considerable attention among scholars. Effectuation is about human action—and more specifically, about the unfolding process of entrepreneurial action (Arend, Sarooghi and Burkemper, 2016). The effectuation theory has been developed by Saravathy in 2001, which acknowledges how the decision-making process, action and implementation of entrepreneurs practiced by entrepreneurs in an unpredicted and dynamic environment (Read and Sarasvathy, 2005); which resembles the conditions surrounding social entrepreneurs. Hence, effectuation can be suggested as a possible resort to assist social entrepreneurs in the decision-making process to improve their enterprises’ performance. As a result, the objective of the research is to investigate the impact of the effectual logic principles, which are affordable loss, flexibility, pre-commitment, and experimentation on social enterprises’ financial, market, and innovative performance in Egypt.

To start with, results show that the performance of social enterprises in Egypt is average, and in some instances is less than average especially financial and innovation performance. In terms of financial performance, when comparing social enterprises to other companies in the same field, they are achieving less growth in their revenues and hence they are less profitable, causing their performance to be less than their expectations. In terms of innovation, it is noticeable that very few enterprises who have innovations under intellectual property protection; this could be attributed to the lack of financial resources available to them. Such



weak performance is signaling a wasted opportunity, and over time might jeopardize the social impact.

Regarding the effectuation, results show that Egyptian social entrepreneurs are moderately applying effectuation principles as they perform their regular activities. They are cautiously performing trial-and-error seeking better results and/or finding a business model that works; they are somehow risk-averse and try to take different measures to minimize the loss. Despite of this, they are flexible and are open, cautiously, to modifications, especially with their business model and/or products/service. Lastly, they are attempting to build strong relationship with stakeholders to enrich their business. Furthermore, effectuation slightly impacts the performance (innovation, market and financial) of social enterprises, though not a strong one.

Future Research

Despite the importance of the current study in filling theoretical gaps, it has several limitations and some implications for future research. First, the research attempted to examine the link between effectuation and performance of social enterprises.; however, it was not clear if any of the respondents had a prior knowledge of effectuation and have designed their activities based on this knowledge or not. Hence future research that focuses on the knowledge of the term and practice is recommended. Second, the research data were collected from social entrepreneurs about their enterprises' performance, through certain measures adopted from previous research, which might suggest a level of subjectivity and biases from one side and appropriateness of the tool from another side. Hence, future research is recommended utilizing longitudinal study to measure performance.

Another limitation of the study is its relatively small sample size chosen using snow-ball sampling. Although the actual number of social enterprises in Egypt is not confirmed, but to obtain a deeper understanding of the utilization of effectual thinking by social entrepreneurs, one would have to include a larger sample of social enterprises. Another recommendation for future is to Include non-social entrepreneurs (driven by profit) in the study and compare between the results to give a better insight on the practices of principles.

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