PUBLIC PROCUREMENT TO MEET SUSTAINABLE POLICY GOALS IN MALAYSIA’S PUBLIC SECTOR: A PRELIMINARY STUDY

Nur Faiza Ishak, Research Scholar
Asia Pacific University of Technology & Innovation (APU)
School of Business and Management

Professor Ir. Ts. Dr. Vinesh Thiruchelvam, Deputy Vice Chancellor, Asia Pacific University (APU) and Chief Innovation Officer (APIIT Education Group).

nurfaizaishak@yandex.com
vineshthiruchelvam@yandex.com

Abstract
However the significance of lasting general public purchase continues to be recognized in many from the created nations, building nations like Malaysia continue to be in the childhood degree. Present research centered on the particular difficulties plus determinants associated with applying environmentally friendly general public purchase within Malaysia. Nevertheless , minimum study on the specific execution within the open public field companies inside Malaysia. This particular research looks at how long typically the durability requirements are integrated within Malaysia’s community purchase making use of supplementary information. It was carried out with a considerable record evaluation throughout purchase updates promoted within Malaysia’s e-Perolehan program more than 3 years through 2018 -- 2020. The outcomes display that will just 9% in the papers purchase updates plus 15% regarding ICT purchase updates are usually eco friendly along with environment requirements inlayed within the specs files made by the particular palliers. Apart from, technologies plus advancement industries are usually recognized to become devoted to integrating durability generally in most of the purchase sees.

Key phrases: Lasting people purchase, eco-friendly consumer purchase, government’s environmentally friendly purchase, Malaysia, open field organizations

1.0 Introduction
Considerably, general public purchase gained the federal government, economic climate plus local community via provide improvements, nearby marketplace or even interpersonal wellbeing from the populace simply by decreasing environment damage. Based on OECD (2017), open public purchase symbolizing a minimum of 12% from the nation’s GROSS DOMESTIC PRODUCT within OECD nations. Malaysia’s community purchase program consists of function, provide, plus support and may become carried out via a couple of settings: immediate buy, quote, or even soft procedure. However, The particular Usa Country decided to Lasting Advancement Objectives (SDGs) to deal with low income along with preservation associated with planet with regard to serenity and even wealth (United Countries, 2019). Among the efforts towards the accomplishment in the SDGs is achievable simply by improving lasting people purchase (SPP) methods. Within Malaysia, SDGs focuses on together with signals are usually carefully linked to the eleventh Malaysia Strategy (11MP) through 2016 -- 2020, where Malaysia devoted to go after eco-friendly development plus follow environmentally friendly usage plus manufacturing idea (EPU, 2015). Simply by applying eco friendly purchase since the biggest solitary purchaser, the nation in general will certainly advantage financially without having doing harm to the surroundings plus influencing the particular community. SPP has been described by simply Brammer plus Master (2011) because purchase choices that will include sociable issue, financial progress plus environment effects carried out simply by consumer body or perhaps companies. Since many nations around the world began to start ecological advancement within their nationwide plan goals, educational study upon SPP continues to be developing as well given that the year 2010 having a focus on bureaucratic administration, method focused and also complete exercise in addition to effect associated with SPP (Cheng ainsi que ing., 2018).

Malaysia begun to create durability work by means of among the sizes that are atmosphere. Kahlenborn, Mansor plus Adham (2014) launched Authorities Eco-friendly Purchase (GGP) recommendations to enhance typically

DOI: 10.9756/INT-JECSE/V14I3.863
the effectiveness associated with open purchase through the use of general population marketplace impact to remodel Malaysia’s overall economy right into an eco-friendly economic system and even decreasing ecological damage. The particular avertissement regarding GGP had been documented from the Ministry involving Financial Matters (2018) having a gathered associated with RM286. a few mil within 2017 more than twenty services and products on execution by simply almost all general public field organizations. Based on the OECD (2019), a minimum of 29% associated with authorities costs will be used on common purchase, showing that this authorities may be the individual greatest spender to attain countrywide plan goals. Whenever GGP suggestions had been 1st launched simply by Financial Preparing Device (EPU) within 2015, concern inside purchase honor was provided to environmentally-friendly products that will adhere to eco-friendly technologies requirements. Nevertheless , choice regarding environmentally-friendly product or service inside the general public industry may barely end up being applied because of the insufficient execution rules obtainable (Kahlenborn ainsi que ‘s., 2014).

In spite of couple of some other endeavours regarding SPP specially in building (Bidin ou approach., 2020; Bohari ain ing., 2017), production (Chan tout autant que way., 2018) together with SMEs industries (Beleya au même tire que ‘s., 2019), simply no distribution offers however to learn your durability requirements by way of open public purchase execution inside Malaysia’s open public field firms. Therefore, this particular research is designed to check into the particular durability requirements setup by e-Perolehan throughout Malaysia’s community market companies. This particular research will certainly concentrate on 2 (2) extremely bought item organizations within the community company: Papers plus ICT via supplementary information research. The outcomes may give rise to brand new understanding of durability conditions within Malaysia’s people purchase. Apart from, this particular research will help policymakers to comprehend the present durability requirements more enhanced create inclusivity later on. To understand this specific goal, the study query to become clarified with this research will be “How much has got the durability standards has been a part of purchase updates by means of Malaysia’s e-Perolehan? ”

More of this particular papers will be organized the following. Area two offers a short intro with the Federal government Eco-friendly Purchase in addition to e-Perolehan program within Malaysia. Segment three or more explains the technique utilized to carry out the research. Part four describes the outcomes plus results of the research. Area five provides the topic and lastly, Segment six places ahead typically the findings, restrictions and even suggestions on the examine.

2.0 Towards Sustainability In Malaysia’s Public Procurement

2.1 Malaysia’s Government Green Procurement (GGP)

Much like Eco-friendly General public Purchase (GPP), Malaysia via (Kahlenborn ainsi que ing., 2014) offers launched its very own Authorities Eco-friendly Purchase (GGP) recommendations to enhance the particular effectiveness associated with general public purchase through the use of open public marketplace impact in order to change Malaysia’s economic climate right into an eco-friendly overall economy. GGP within Malaysia is definitely exactly the same idea because GPP phrase which has been utilized internationally. Based on Kahlenborn, Mansor plus Adham (2014), GGP is described as typically the buy of goods, solutions or even function simply by community companies that will views environment requirements to safeguard the particular environment plus sources with the same time frame decreases unfavorable effects around the community. This particular work will certainly improve people buying efficiency in addition to handle marketplace assets to push area in the direction of the eco-friendly economic system. The particular take action regarding matching atmosphere requirements in to consumer purchase results in lots of advantages like traveling item development for any quality item, growing industry competition, offering extensive cost savings and inspiring the more healthy operating situation.

Malaysia has additionally taken into consideration GGP within the eleventh Malaysia Strategy (11MP) through 2016 -- 2020 via the 5th expoliar that is to attain a minimum of twenty percent involving GGP upon chosen environmentally friendly services and products. To do this, Malaysia features 2 (2) stages associated with GGP: Immediate Plan of action (STAP) within the 12 months 2014 : 2015 and even Extensive Plan of action (LTAP) simply by focusing on no less than twenty percent regarding purchase to become eco-friendly from the 12 months 2020, 50 percent eco-friendly simply by 2025 through 2030, totally associated with purchase to become eco-friendly (Economic Preparing Device, 2016).
Like a begin, Malaysia provides enrolled particular conditions with regard to environmentally friendly merchandise or even solutions choices for example accessibility to the requirements for particular services or products, the particular preparedness associated with nearby providers, substantial ecological effect as well as the spending budget issue to buy and keep the item plus providers. Therefore, to begin with, Malaysia started to start GGP inside the yr 2014 -- 2016 by means of 5 (5) leader organizations. The particular execution starting upon 6 product or service organizations together with companies had been cautiously selected, specifically cleansing expert services, ICT gear, power performance interior illumination, papers, paints/ covering plus dietary fiber concrete (Kahlenborn ou ing., 2014).

However the significance of eco-friendly methods continues to be recognized in many created nations, building nations like Malaysia along with other Southeast Parts of asia are simply in their own starting place (Bohari ain ‘s., 2017). Within Malaysia’s framework, GGP continues to be investigated in a variety of industries for example building (Bidin ainsi que que approch., 2020; Hassan tout autant que que way., 2018), meals (Beleya ou ing., 2019; Suntan au même tire que ‘s., 2019), furnishings (Chan ain approach., 2018) plus transport (Alagesan and Daud, 2019). Many of these earlier books relates to typically the scientific research associated with GGP especially within their field. The present research furthermore discovered the particular difficulties plus determinants on applying durability standards within the purchase procedure. Each Chan de plus ‘s. (2018) plus Bidin de surcroît way. (2020) discovered that certain from the problems to be able to applying GGP may be the belief better price along the way as well as the item by itself. Apart from, lack of knowledge plus understanding of GGP can be another problem recognized simply by (McMurray ainsiq ue ing., 2014). Additionally , Bohari de même que ing. (2017) recommended that will constant coaching with the capability creating will certainly decrease understanding spaces inside the palliers in order to conquer typically the issues.

2.2 e-Perolehan System

The usage of a good web-based program to complete aspects of the particular purchase procedure, like research, finding, settlement, purchasing, wedding reception, plus post-purchase evaluation, is known as e-Procurement (Croom and Brandon-Jones, 2005). Based on Thailänder (2001), applying e-Procurement actions must be seen as an effort to enhance purchase objectives, which frequently consist of high quality, timeliness, plus price plus reducing industrial, monetary, in addition to specialized dangers, growing competition, plus keeping honesty. Malaysia offers the e-Procurement range topping referred to as e-Perolehan, allowing providers to provide services and products towards the authorities via a smooth on the internet program. Digital purchase, describes web-based programs that will perform numerous purchase procedures for example acquiring, settlement, purchasing, invoice, and even post-purchase overview (Mohamed Elias ainsi que que ing., 2012). The particular execution associated with e-Perolehan gained almost all events when it comes to achieving competition, decreasing décadence amongst palliers plus vendors, improving procedure effectiveness and also a cost-effective method along with reduce expenses but nonetheless available anytime (Kassim and Hussin, 2013; Mohd Nawi ou ing., 2016; Nawi ainsi que ‘s., 2017). In addition, the particular e-Perolehan program also contains transaction method that allows each to almost all deal techniques (Ministry associated with Financial, 2018a). Therefore, this can boost the honesty and minimize any kind of feasible way of typically the dishonest take action inside the procedure. In ways, the device offers comfort in order to each general public field companies as well as the providers due to simple strategy plus much less trouble associated with soft involvement.

Nawi ain approach. (2017) within their research previously outlined several benefits of the particular e-Perolehan program, like expense decrease together with enhanced effectiveness using web-based info plus conversation technologies. In addition to that, Ngatman plus They would. H. Alderei in addition to They would. Nspiración (2020) pressured that this difficulties confronted on applying e-Perolehan are usually insufficient ICT infrastructures, not enough understanding and even technological abilities, sources restriction plus level of resistance through implementer. Nonetheless, Malaysia offers completely apply e-Perolehan efficient coming from This summer first 2018 (Kamaruddin and Noor, 2017) that involves 5 (5) important segments specifically agreement administration, provider choice, satisfaction, purchase strategy together with provider supervision (Ministry associated with Financing, 2018b). The primary web page associated with e-Perolehan web site will be demonstrated within Determine one
Malaysia’s e-Perolehan portal

3.0 Methodology

An earlier search via supplementary information concerning purchase updates has been carried out with this research. It was intentionally carried out to see their own purchase program plus files promoted to any or all possible taking part providers. Files analysis was carried out with the on the internet web site associated with e-Perolehan, where all the details is obtainable in addition to clear to become seen simply by anybody (Ministry associated with Financial, 2020). Usually, depending on Malaysia’s general public purchase methods, purchase updates could be marketed at least associated with a few times or even so long as over 8 weeks, based on the possible involvement regarding tenderers. Usually, the greater complex the particular task will be, typically the lengthier period is going to be provided to acquire as numerous tenderer participations as you possibly can. The purchase discover is not just limited inside industries yet simply by any kind of company using its personal yearly allotted spending budget from the 12 months. Given that a large number of purchase updates can be found on the site, it really is a good idea to limit the particular key phrase involving looking to particular services or products associated. Essentially, for any purchase discover to get regarded as lasting, vendors should incorporate both from the durability dimensions requirements within their provide (environmental, financial or perhaps social). On assessment, these types of requirements brings weightage including the cost, high quality, coaching, logistic or even existence period price.

With this initial research, just finished purchase sees had been utilized with the e-Perolehan web site for 3 (3) many years through 2018 -- 2020. The particular limitation furthermore pertains to 2 (2) generally bought items within the open public field that are ICT associated products/ solutions and even documents provide. Both of these (2) items are in line with the listing obtainable in Malaysia’s Authorities Eco-friendly Purchase (GGP) Immediate Plan of action (STAP) (Kahlenborn ainsi que ing., 2014). Those two (2) item team seemed to be rated because best 2 concern item groups within taking part nationwide government authorities according to research relating to SPP implementations inside Nationwide Government authorities by simply UNEP (2017). Exactly the same research simply by UNEP furthermore recognized that will EUROPEAN UNION nations overcome 44% associated with SPP implementations internationally whilst Parts of asia just in 22%. Apart from, this particular examine chosen papers together with ICT merchandise party due to the fact buying these products can be viewed as essential with regard to function reasons in most companies (Ministry associated with Financial Mongolian and Un Atmosphere, 2017).

The particular research procedure within the e-Perolehan site has been limited to “Awarded” meaning the entire procedure for the soft offer you. Similarly, with regards to an accurate plus quick lookup, Purchase Name research is fixed in order to “ICT” plus “Paper/ Kertas” just (Figure 2).
Criteria selection through e-Perolehan portal

All of the information are usually clear within the e-Perolehan data source and is utilized simply by anybody. The main files analysed had been the particular purchase contact discover name, the particular notice’s short explanation, as well as the specs files made by typically the palliers or even companies providing the particular honor. Lastly, as soon as all the files are put together, durability requirements for every purchase updates specs are usually recognized via almost all 3 paperwork. The particular papers had been furthermore categorized by simply field from the ministry, area and also purchase 12 months. An entire procedure circulation is highlighted within Determine a few.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Criteria</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>1. post-consumer retrieved papers materials (recycled paper)</td>
<td>Kahlenborn, Mansor and Adham (2014)</td>
</tr>
<tr>
<td></td>
<td>2. paper based upon lawfully or even sustainably gathered virgin mobile dietary fiber</td>
<td></td>
</tr>
<tr>
<td>3. production procedures seen as a lower power usage plus exhausts</td>
<td>The Government and Incorporated Administrative Agencies Japan (2016)</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>we. content material associated with reused pulp, pulp licensed simply by woodland accreditation program</td>
<td>Dorjnyambuu and Nyamsuren (2015)</td>
<td></td>
</tr>
<tr>
<td>2. product packaging plus stowage is usually to be as easy as you possibly can in addition to consider simplicity of recycling where possible plus decreased environment effect on removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i actually. papers is really a mixture of virgin mobile and even reused materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. virgin mobile pulp content material continues to be licensed because lawfully collected from the sustainably handled forest/ wood resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. transportation effects through the provide string are usually reduced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. papers product packaging is recyclable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sixth is v. papers will be licensed since eco-label</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mire. utilizes alternative energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>we. document manufactured from lasting dietary fiber resources, sustainably maintained jungles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. reused report, post-consumer taking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. eating reduce levels of power together with drinking water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. chlorine elements totally free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environmentally-friendly presentationpost-consumer recovered paper fibers (recycled paper)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper-based on legally or sustainably harvested virgin fiber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manufacturing processes characterized by low energy consumption and emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>avoidance of certain substances in paper production and bleaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>content of recycled pulp, pulp certified by forest certification system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>packaging and stowage is to be as simple as possible and take into account ease of recycling and reduced environmental impact upon disposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper is a blend of virgin and recycled fibers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>virgin pulp content has been certified as legally harvested from a sustainably managed forest/ timber source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>transport impacts throughout the supply chain are minimised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper packaging is recyclable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper is certified as eco-label uses renewable energy sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper produced from sustainable fiber sources, sustainably managed forests recycled paper, post-consumer recycling consuming lower amounts of energy and water chlorine substances free environmentally-friendly packaging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
we. energetic involvement within the interpersonal plus financial progress nearby areas in addition to important stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within document provide string, reasonable income, labor force equal rights, variety, prevention associated with fused labour, advertising labor force well being
2. nearby durability because they build plus keeping healthful, solid areas, assisting interpersonal addition and even improving the particular wellbeing associated with regional occupants simply by producing community work.
specialized high quality, match for regular duplicate equipment
we. energetic involvement within the interpersonal plus financial progress nearby areas in addition to important stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within document provide string, reasonable income, labor force equal rights, variety, prevention associated with fused labour, advertising labor force well being
2. nearby durability because they build plus keeping healthful, solid areas, assisting interpersonal addition and even improving the particular wellbeing associated with regional occupants simply by producing community work.
specialized high quality, match for regular duplicate equipment
we. energetic involvement within the interpersonal plus financial progress nearby areas in addition to important stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within document provide string, reasonable income, labor force equal rights, variety, prevention associated with fused labour, advertising labor force well being
2. nearby durability because they build plus keeping healthful, solid areas, assisting interpersonal addition and even improving the particular wellbeing associated with regional occupants simply by producing community work.
specialized high quality, match for regular duplicate equipment
we. energetic involvement within the interpersonal plus financial progress nearby areas in addition to important stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within document provide string, reasonable income, labor force equal rights, variety, prevention associated with fused labour, advertising labor force well being
2. nearby durability because they build plus keeping healthful, solid areas, assisting interpersonal addition and even improving the particular wellbeing associated with regional occupants simply by producing community work.
specialized high quality, match for regular duplicate equipment
we. energetic involvement within the interpersonal plus financial progress nearby areas in addition to important stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within document provide string, reasonable income, labor force equal rights, variety, prevention associated with fused labour, advertising labor force well being
2. nearby durability because they build plus keeping healthful, solid areas, assisting interpersonal addition and even improving the particular wellbeing associated with regional occupants simply by producing community work.
specialized high quality, match for regular duplicate equipment
active participation in the social and economic development of local communities and key stakeholders
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within papers provide string, reasonable income, labor force equal rights, variety, prevention regarding fused labour, advertising staff well being
2. nearby durability because they build in addition to keeping healthful, solid areas, assisting interpersonal development
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within papers provide string, reasonable income, labor force equal rights, variety, prevention regarding fused labour, advertising staff well being
2. nearby durability because they build in addition to keeping healthful, solid areas, assisting interpersonal development
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within papers provide string, reasonable income, labor force equal rights, variety, prevention regarding fused labour, advertising staff well being
2. nearby durability because they build in addition to keeping healthful, solid areas, assisting interpersonal development
we. manufacturing associated with papers based on worldwide work requirements plus human being legal rights laws and regulations: Reasonable work methods within papers provide string, reasonable income, labor force equal rights, variety, prevention regarding fused labour, advertising staff well being
2. nearby durability because they build in addition to keeping healthful, solid areas, assisting interpersonal development

addition and even improving the particular wellbeing involving nearby occupants simply by producing regional job, specialized high quality, match for regular duplicate equipment

**Economy**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Criteria</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>We, multi-purpose duplicate papers ideal for backup devices, laser beam ink jet printers, fax-machines, ink-jet ink jet printers plus 2-sided duplicating conserve expenses 2. financial factor associated with document provide string in order to nationwide GROSS DOMESTIC PRODUCT 3. work development associated with papers source string inside a nation plus possibilities with regard to SMEs re-investing within procedures regarding papers provide cyclemultipurpose copy paper suitable for copy machines, laser printers, fax-machines, ink-jet printers and 2-sided copying can save costs economic contribution of paper supply chain to national GDP job creation of paper supply chain in a country and opportunities for SMEs re-investing in operations of paper supply chain</td>
<td>Dorjnyambuu and Nyamsuren (2015)</td>
</tr>
</tbody>
</table>

**Sustainability criteria for ICT product group**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Criteria</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>We, ICT gear a minimum of Power Celebrity five. two and satisfies EPEAT (silver) requirements 2. high efficiency versions 3. items having a limited quantity of dangerous matters 4. style with regard to recycling where possible, lengthier existence plus advertise get backoptions secure removal (recycling, re-using) of ultimate items. we, items should be authorized plus licensed in order to EPEAT metallic regular 2. should fulfill extra product packaging needs: multi-packs with regard to mass purchases -- associated with extra CD/DVDs plus files 3. offer an end-of-life takeback assure in addition to need to show there are plans in position in order to reuse, reuse or even get rid of waste materials</td>
<td>Kahlenborn, Mansor and Adham (2014)</td>
</tr>
</tbody>
</table>

| Social | We, Manufacturing and provide string based on worldwide work requirements plus human being legal rights laws and regulations 2. Nearby durability 3. Specialized high quality we. Advertising reasonable therapy, nondiscrimination, plus the same chance associated with employees 2. Set up, sustain in addition to enhance worker-management partnership 3. Advertising conformity along with nationwide work and even work laws and regulations 4. Safeguarding employees -- which includes susceptible | (Ministry of Finance Mongolian & United Nations Environment, 2017) (Ministry of Finance and Economic Development Mauritius, 2013) |
groups like kids, migrant employees, staff involved simply by businesses, plus personnel within the client’s provide string sixth is v. Marketing secure plus healthful operating problems, as well as the wellness associated with individuals Staying away from the usage of pushed work plus kid labour

4.0 Results
4.1 Overall sample distribution
It will show the entire test submission taken out through e-Perolehan program. Just before that will, all the companies are grouped in to comparable industries with regard to simple knowing. An overall total of just one, 237 purchase updates had been gathered through e-Perolehan soft get in touch with 2018 -- 2020 with regard to each Papers plus ICT item team. Quantity of general examples taken out regarding each item organizations will be demonstrated within Determine four.

![No. of procurement notices according to year](image)

In line with the results as well, the amount of purchase updates will be growing through 2018 for that ICT item team. Nevertheless , for that papers item team, the amount improved within 2019 plus decreased simply by fifteen updates within 2020. General, it could be observed that will purchase updates for your ICT merchandise team are bending the particular document product or service. This may because of lower papers needed within the occasions associated with outbreak setting up inside the earlier 12 months regarding 2020. An entire submission involving purchase updates based on the company industries, item team in addition to 12 months will be offered inside Desk a few.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>8</td>
<td>14</td>
<td>14</td>
<td>36</td>
<td>27</td>
<td>56</td>
<td>29</td>
<td>112</td>
</tr>
<tr>
<td>Social</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>15</td>
<td>30</td>
<td>67</td>
<td>70</td>
<td>167</td>
</tr>
<tr>
<td>Security</td>
<td>14</td>
<td>23</td>
<td>25</td>
<td>62</td>
<td>3</td>
<td>21</td>
<td>25</td>
<td>49</td>
</tr>
<tr>
<td>Health</td>
<td>22</td>
<td>50</td>
<td>35</td>
<td>107</td>
<td>15</td>
<td>58</td>
<td>43</td>
<td>116</td>
</tr>
<tr>
<td>Trade</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Energy &amp; Agriculture</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>13</td>
<td>21</td>
<td>34</td>
<td>30</td>
<td>85</td>
</tr>
<tr>
<td>Development</td>
<td>6</td>
<td>13</td>
<td>6</td>
<td>25</td>
<td>16</td>
<td>14</td>
<td>27</td>
<td>57</td>
</tr>
<tr>
<td>Education</td>
<td>24</td>
<td>54</td>
<td>58</td>
<td>136</td>
<td>29</td>
<td>71</td>
<td>99</td>
<td>199</td>
</tr>
<tr>
<td>Technology</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Economy</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>85</td>
<td>168</td>
<td>153</td>
<td>406</td>
<td>154</td>
<td>337</td>
<td>340</td>
<td>831</td>
</tr>
</tbody>
</table>
4.2 Distribution of sustainability criteria
Record associated with finished purchase updates has been evaluated plus organized based on the durability requirements within the files, 12 months plus company industries. With this research, regardless of whether the purchase discover will be categorized because lasting delete word is founded on among the lasting conditions classified by Determine five. Each one of these requirements were deduced upon comparable meanings like eco-friendly general public purchase, accountable purchase, honest purchase, socially accountable purchase, eco-label/eco-product, eco-friendly purchase plus recycle/used again (Haitao Yin and Schmeidler, this year; Knebel ainsi que ing., 2019; Limpio, 2020). Apart from, these types of requirements are usually essentially an index of the particular sustainability standards based on item team since described within Desk one in addition to two previously.

4.3 Distribution of product group
a) Paper
Key phrase “paper” on looking the particular e-perolehan data source produces 406 records. The particular results acquired purchase with regard to A4 documents plus which includes papers sub-product like coloured document, computer-form report, focus on papers, examination provide document, as well as workplace stationeries. The majority of the sub-products had been arranged within the exact same purchase discover to prevent isolating in to smaller sized purchase updates within the exact same 12 months, that is contrary to the monetary plus purchase methods. Nevertheless, from 406 updates, purchase sees with regard to “paper” just produce thirty six updates along with durability requirements inlayed within specs files. 6 (6) sees back in 2018, seventeen updates within 2019 in addition to fall in order to thirteen realises inside 2020. Durability conditions had been recognized possibly inside the name from the observe or even within the standards necessity. From thirty six, just half the notice’s requirements do pointed out obviously “reuse/ recycle/ eco-friendly,” as the remaining specs are simply asking for for any particular brand name which has currently incorporated durability sizes within their item. However, typically the durability requirements regarding documents purchase updates simply outlined “reuse/ recycle/ eco friendly” which usually relates clearly towards the environment dimensions. Regrettably, another 2 (2) durability sizes (social plus economy) are not situated both inside the notice’s name or even specs. The entire overview associated with newspaper purchase updates from your yr 2018 -- 2020 will be demonstrated throughout Determine six.
In addition, just twenty-seven companies took part within marketing “green” purchase updates rather than “sustainable” purchase updates with regard to 2018 -- 2020. The low quantity of updates may be because of the Main Agreement Round simply by MOF given that MOF offers hired an ardent provider to provide A4 documents to any or all general public field company for 3 (3) many years of the particular agreement (2016 : 2019). In this instance, very is going to be provided to any kind of company that just needs buying lower than fifty wheels yet susceptible to unique authorization through MOF.

Finally, an evaluation among sectors’ execution via SPP will be demonstrated inside Determine seven. Within the results, there is absolutely no regularity within SPP execution in most business industries. It had been obvious that the particular companies simply think about among the durability dimensions (environmental) because of Malaysia’s guide is completely upon “green procurement”. The particular chart furthermore implies that management, industry advancement plus schooling sectors’ setup associated with SPP is extremely lower through the 3 years regarding research. Whilst interpersonal, power and farming, plus technologies areas managed their own SPP work through the many years. In conclusion, general rendering associated with durability addition requirements throughout papers item purchase updates with regard to 2018 instructions 2020 just accomplished 9% through 406 sees. Nonetheless, however the portion is reduced, the particular growing quantity shows that will Malaysia happens to be around the correct route in the direction of durability.
Overall percentage of sustainable public procurement notices for Paper

b) ICT
Numerous services and products are usually associated with ICT purchase had been present in the particular data source like the purchase associated with ICT gear (PC, laptop computer, inkjet printer plus server), servicing solutions associated with current gear as well as the flow of consumables with regard to ICT products. Depending on research requirements chosen previously, the outcomes was able to get yourself a complete regarding 831 purchase updates through 3 (3) many years (2018 - 2020). Almost all specs within every purchase updates had been analyzed to recognize the particular inclusivity involving lasting requirements. The particular overview of the obtaining will be demonstrated inside Determine eight where the particular amounts of lasting general public purchase sees with regard to ICT items is visible like a regularly growing pattern from your 12 months 2018 : 2020.

Following a comprehensive study of almost all specs promoted from the companies, it had been found that an overall total associated with a hundred and twenty-five purchase updates (15% regarding complete ICT procurement) consists of durability requirements like eco-friendly, eco-friendly item, reused plus used again. In
addition, the amount of durability requirements inlayed in to the soft requirements may also be observed growing from your 12 months 2018 along with just twenty purchase updates as much as 57 SPP sees within the yr 2020. Not just that, it really is really worth mentioned that this durability requirements will also be produced required for that provider in order to conform on posting the particular soft. Consequently , although the majority of the inclusivity just views environmentally friendly dimensions, however the work to incorporate conditions within their purchase updates could be congratulated. Lastly, Determine nine displays the particular assessment among sectors’ execution via lasting general public purchase.

Overall percentage of sustainable public procurement notices for ICT

In contrast to papers items, durability requirements inclusivity for that ICT item team appears to be around the correct route with regard to wellness, advancement plus financial field. Nonetheless, the particular execution associated with SPP within the ICT item team will be general greater than document consist of industries. In addition to that, similar to the report merchandise team, the particular industry field continues to have however in order to apply durability conditions in the purchase updates. In addition, ICT items often obtain a lot more durability interest and recognition from your companies in addition to assistance through providers. This may become because of the recognized lasting ICT items available for sale in an inexpensive cost and even affordable share accessibility.

5.0 Discussions
This particular initial research is designed to check into the particular durability requirements execution via e-Perolehan program within Malaysia’s general public field companies. EPU by means of GGP recommendations outlined 6 (6) item organizations plus solutions. Within forecasting the specific setup associated with durability conditions simply by general public field organizations, this particular research offers regarded as 2 (2) the majority of bought item organizations by simply nationwide government authorities. Presently, more than fifty, 500 purchase updates are becoming promoted around the e-Perolehan web site for that 12 months which range from 2018 till the present day. Purchase provide with the e-Perolehan method continues to be related to period plus cost benefits in addition to enhanced efficiency (Shu Hui ainsi que ing., 2011).

Consequently, this particular research discovered that this search engine results with regard to Papers item produces 406 granted purchase updates through 2018 -- 2020, whilst 831 purchase updates regarding ICT items. The amount of purchase updates will be progressively growing through the many years intended for each items. When it comes to durability requirements, buying lasting ICT goods produced equipped a greater portion compared to papers items. Within 2018, ICT items acquired a minimum of 13% from the purchase had been eco-friendly, improved in order to 14% within 2019 and even 17% within 2020. This particular worth is much like that which was discovered simply by (Welz and Stuermer, 2020) within Swiss, where these people accomplished 15% associated with environmentally friendly standards with regard to 2018 together with 2019 underneath the exact same item team (ICT hardware). Within their obtaining as well, Europe firms incorporated a couple of (2) durability requirements that are environment plus interpersonal sizes. Nonetheless, this specific shows that will Malaysia will be on the right course in addition to similar to some other created nations.
greater percent may be easily attained along with consciousness discussing via a much better formula regarding coaching needs (Liu, Shi, ou ‘s., 2019).

Nevertheless, typically the durability proportion to get Papers items is just not because encouraging because ICT. Inside 2018, just seven percent in the purchase updates are usually lasting, although 2019 demonstrated the particular determine to improve in order to 10% after which decreased to 9% back in 2020. The amount of updates will be lower having a typical involving just twelve purchase updates are usually environmentally friendly each year, from one hundred thirty five updates. Therefore, a lot more work must be used forward in order to motivate typically the companies to be able to take part plus assistance the particular durability business, specially in papers merchandise party.

One method to boost SPP execution no matter product or service organizations is because they build the particular essential abilities plus coaching systems (Liu, Shi, ain ing., 2019; Mwesiumo ainsi que approach., 2019). Additionally, typically the constant knowledge-building procedure and much more home elevators the particular durability platform can aid the particular decision-makers and even purchase officials inside integrating durability conditions in most with the purchase updates. Yet, additionally it is essential to determine a powerful durability marketplace assure towards the providers before the advertising offer you (Lenderink ou way., 2019; Sahin-Ipek and Karadag, 2017). In addition, presenting an incentive technique may also enhance the presence associated with environmentally friendly version throughout Malaysia’s open public purchase (Bidin tout autant que ing., 2020).

Durability standards in public areas purchase must not be limited to every day essentials item groupings yet to think about the wider strategy. For instance, among the attempts is via a lasting food purchase associated with natural foods, recyclable together with eco-friendly product packaging, eco-friendly automobiles utilized for strategies, plus assisting nearby in addition to periodic manufacturing (Simanovska ain ‘s., 2021). Likewise pertaining to eco friendly furnishing purchase, durability requirements to become regarded as are usually like not really making use of restricted leather-based ingredients, sustainable found wood and even wooden item, low-emission surface area covering together with reducing risks throughout production plus providing typically the home furniture (Chan au même tire que ‘s., 2018; UNEP, 2008). Apart from, several correctly discovered SPP methods consist of services and products team for example street tagging (Burghardt as well as Pashkevich, 2021), transport (Aldenius and Khan, 2017; Bjerkan de plus ing., 2019; Fauske and Schrader, 2017), fabrics (Dodd as well as Variedade Caldas, 2017) plus resort solutions (Giessen, 2018).

### 6.0 Conclusions and Recommendations

This particular initial research is designed to check into the particular durability requirements execution via e-Perolehan within Malaysia’s general public field companies. Lasting open public purchase execution is vital to attain SDGs focuses on and be sure much better factors towards community, economic climate plus atmosphere. This particular research taken out one, 237 purchase updates for 2 (2) item organizations that are Papers plus ICT. Nevertheless, in line with the analysis from the files, all the lasting purchase updates just consist of environment dimensions plus non-e in the updates consists of modern society or even financial sizing. Because Malaysia’s present recommendations upon environmentally friendly open public purchase, this may simply concentrate on environmentally friendly dimensions with the Authorities Eco-friendly Purchase guide.

Nonetheless, in order to review the study query presented previously, typically the obtaining implies that simply 9% from the papers purchase sees plus 15% from the ICT purchase updates are eco friendly. This particular getting may determine that will SPP is just not applied broadly sufficient inside ecological open public purchase platform solutions. Yet, when it comes to GGP, Malaysia will be on the right course to be able to front the street in order to totally associated with eco-friendly purchase soon. Nevertheless, attaining durability via community purchase in 15% with regard to ICT conditions plus 9% for that papers merchandise continue to be not even close to the particular nation’s focus on that is twenty percent.

Therefore, additional study must be completed have the precise determine associated with durability addition throughout purchase sees in most services and products. Apart from, both of these (2) product or service organizations are usually one of the most regular workplace buys created by any kind of company. Consequently, it is very important to be able to motivate SPP methods within the purchase procedure in order to adhere to typically the SDGs platform. In addition, to make sure Malaysia will certainly accomplish totally self-
sufficient purchase from the 12 months 2030, almost all companies should provide their own purchase officials with increased lasting understanding included in the capability creating (Adjei-Bamfo ainsi que ing., 2019). In addition to, main companies ought to motivate almost all stakeholders in order to adhere to durability requirements within their organizations (Khamis ou ing., 2020; Liu, Liu, ainsi que ’s., 2019). In ways, the time and effort regarding decreasing document waste materials may potentially slow up the usage of some other letter head sources, like toner ink cartridges therefore assisting the life span period with the item (Yeow ain approach., 2011).

Nevertheless , this particular research must not be generalised as a result of couple of restrictions. First of all, this specific research just concentrates on 2 (2) merchandize organizations that are the particular Document plus ICT product or service team because of the limited study some sources. Apart from, this kind of research just removed purchase realises within the past 3 (3) many years. It is because information accessibility within the e-Perolehan program can simply become utilized through 2018 in addition to past. Finally, this particular research just is exploring supplementary info which can be the item specs standards made by typically the providing organizations from the e-Perolehan program.

With regard to long term analysis, a far more extensive selection of item groupings could be taken to obtain additional range and even setup amounts within Malaysia’s community industry firms. Apart from, to help confirm the particular results, forms submission to any or all purchase officials can be carried out to acquire their own encounter inside applying SPP inside their companies. Moreover, taking a look at the lower portion involving execution, the particular quantitative technique may also be capable to determine typically the difficulties which they may be dealing with to include durability requirements in to the purchase method.

REFERENCES


Ngatman, N. H., & H.S.S. Alderei and H. Musa. (2020). The Challenges faced by Public Sector Governance in

DOI: 10.9756/INT-JECSE/V14I3.863


OECD. (2019). *Public Procurement - OECD.*


DOI: 10.9756/INT-JECSE/V14I3.863