GCF READINESS PROJECT: NATIONAL FRAMEWORK TO LEAPFROGGING TO ENERGY EFFICIENT & CLIMATE FRIENDLY AIR-CONDITIONERS AND RESIDENTIAL REFRIGERATING APPLIANCES IN THE GAMBIA

DRAFT FINAL MARKET ASSESSMENT REPORT

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The Gambia

Validation Workshop of the Market Assessment Report
27th Feb. 2024

1 CONTENT

Slide Outline

- **Background & Introduction**
- **Objective & Scope of Market Assessment**
- **Methodology/Approach**

- **Country Context**

- **Survey Results - Residential & Hotel Refrigerating Equipment**
  - **Supply Side**
  - **Demand Side**

- **Survey Results - Residential & Hotel Air-Conditioning Appliance**
  - **Supply Side**
  - **Demand Side**

- **Financial Institutions/Financing Instruments**
- **Government Institutions/Policy Instruments**

- **Conclusions & Recommendations**

2

CONTENT

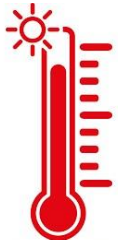
Presentation Slides I

- ♥ Background & Introduction
- ♥ Objective & Scope of Market Assessment
- ♥ Methodology/Approach

3 Background & Introduction

Market Assessment

High Temperatures



High Tariff

MEPS

Low Awareness Level

Partnered to implement a Green Climate Fund (GCF) Readiness Project for a "National Framework for Leapfrogging to Energy-Efficient and Climate-Friendly Air-Conditioners and Refrigerators in The Gambia", which includes preparation of the market assessment.

4 Objective & Scope

Overall Objective & Scope

Overall Objective:

- The **market assessment** aims to **gather** and **analyse baseline data to guide the deployment of energy-efficient and climate friendly domestic refrigerators and room air-conditioners** in The Gambia.

Scope:

- **Room Air-Conditioners** within the **residential** and **hotel** industry
- **Refrigerating Equipment** within the **residential** and **hotel** industry

5

Methodology/Approach

Data Collection & Survey

- Data Collectors: **10 Enumerators and 1 Supervisor** were hired to collect mainly household and supply chain data.
- Training: Held on **8th to 9th November, 2023** to enable them administer the questionnaires.

Enumerators Institution	Numbers of Enumerators
The University of The Gambia (UTG)	3
The Gambia Bureau of Statistics (GBOS)	3
Refrigeration and Air-conditioning Technicians Association (RACTA)	4
Total	**10**

Methodology/Approach

Training of Enumerators

Methodology/Approach

Data Collection & Survey

- **Survey Sample Size**

Stakeholder group	Estimated Sample Size	Number of received questionnaire responses
Households/Residentials	200	200
Supply Chain	20	20
Financial Institutions	10	8
Ministries/Departments/Agencies/Others	10	10
Hotels	4	4
Total	**244**	**242**

7

Methodology/Approach

Household Survey

- **Sub-Sample Size for HHs Survey**

Region/Area		Sub-sample Size
Banjul City Council	*Banjul North*	10
	Banjul South	
	Banjul Central	
Kanifing Municipal Council	*Bakau*	55
	Kanifing	
	Serrekunda	
West Coast Region	*Fonis*	80
	Kombos	
North Bank Region	*Farefenni*	20
Lower River Region	*Soma*	10
Central River Region	*Janjangbureh/Bansang*	10
Upper River Region	*Basse*	15
Total Sample Size		***200***

8

Methodology/Approach

Supply Chain & Government Institutions Survey

Sn	Supply Chain Actor	Type of Business Unit
1.	HiSense	Suppliers of new appliances
2.	Ozone	
3.	Kerr-Gui	
4.	LG (MFH Group)	
5.	MP Trading	
6.	KP Trading	
7.	AP Trading	
8.	Raslan	
9.	SolStar	
10.	GK electronics	
11.	Vestel	
12.	Samsung	
13.	CAS electronics	
14.	Mano Global Trading Ent.	Suppliers of used or second-hand appliances
15.	Fiacre Agency	
16.	Jahanka Amsterdam Ent.	
17.	AJS Ent.	
18.	St. Anthony Ent.	
19.	EMS Ent.	
20.	MS Ent.	

Sn	MDAs
1.	Ministry of Petroleum and Energy (MoPE)
2.	Ministry of Finance and Economic Affairs (MOFEA)
3.	Ministry of Trade, Industry, Regional Integration and Employment (MOTIE)
4.	Ministry of Environment, Climate Change and Natural Resources (MECCNAR)
5.	Ministry of Gender, Children and Social Welfare
6.	Public Utilities Regulatory Authority (PURA)
7.	The Gambia Standard's Bureau
8.	National Environment Agency (NEA)
9.	Gambia Revenue Authority (GRA)
10.	University of Science, Engineering and Technology (USET)

9

Methodology/Approach

Financial Institutions & Hotels Survey

Sn	Financial Institutions
1.	Banker's Association
2.	Standard Chartered Bank Gambia Ltd.
3.	Access Bank Gambia Ltd.
4.	Guaranty Trust Bank Gambia Ltd.
5.	Eco Bank Gambia Ltd.
6.	Trust Bank Gambia Ltd.
7.	Social Development Fund
8.	Reliance Financial Services
9.	Approved Services
10.	Supersonicz Micro Finance Institution

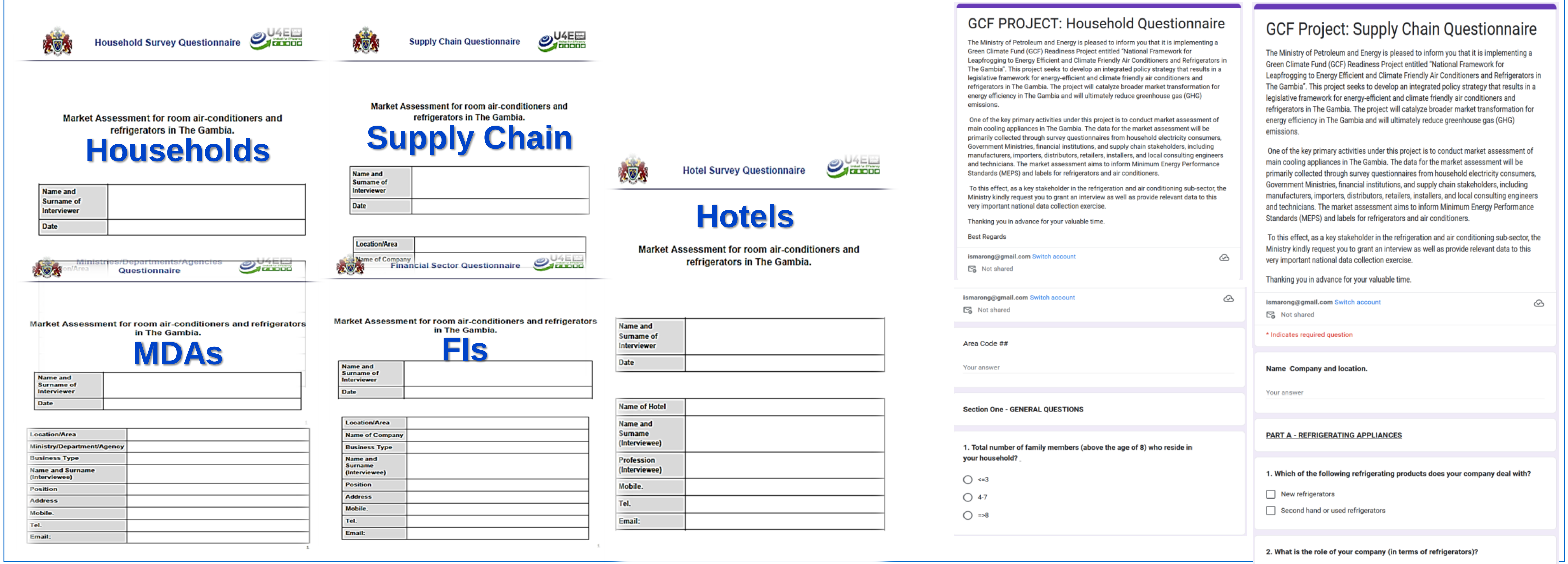
Sn	Hotels
1.	Subprime Tamala Beach Resort
2.	Metzy Residence Hotel
3.	Senegambia Beach Hotel
4.	Baobab Holiday Resort

10

Methodology/Approach

Questionnaires

- Both **Physical** and **Online** questionnaires were used for the data collection.



Discussions/Q&A

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Presentation Slides II

- Country Context

2

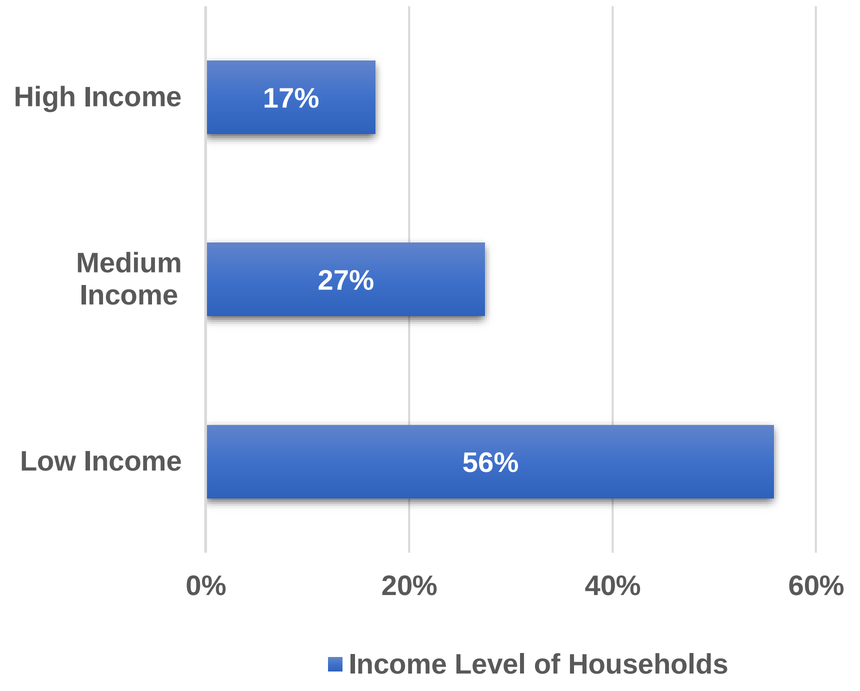
Country Context

Demography and Household Characteristics

Tab. 1 Household Data IHS 2015/16

ESTIMATED SAMPLE SIZE OF 200 HH								
DATA WAS COLLECTED COUNTRY WIDE i.e. Urban & Rural								
Regions	BCC	KMC	WCR	NBR	LRR	CRR	URR	The Gambia
HHs 2015/16 IHS	6643	60103	82006	22609	9668	11849	15819	217610
HHs 2019 est.	6494	67687	92303	23740	9946	21590	16702	236296
Estimated sample size per region	10	55	80	20	10	10	15	200

Fig. 1 Income levels of HHs

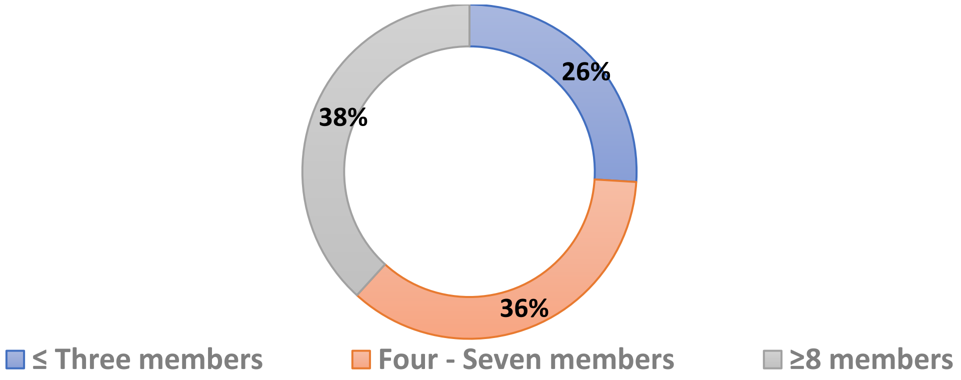


3

Country Context

Demography and Household Characteristics

Fig. 2 Share of Number of Family Members by HHs (L) & Ownership (R)



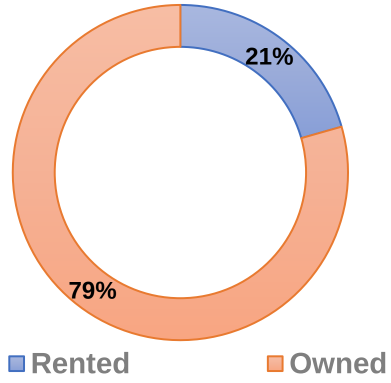
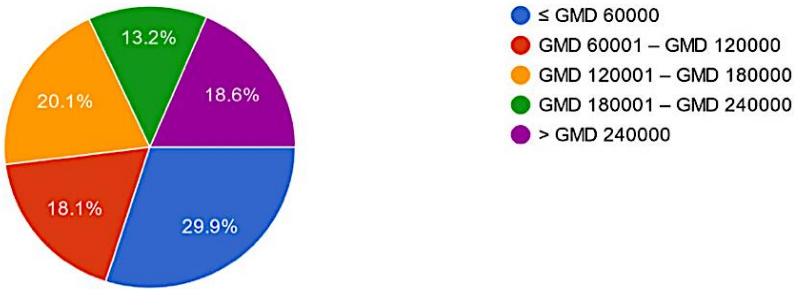


Fig. 3 Distribution of Annual HHs Income



4 Country Context

Household Characteristics & Level of Financial Inclusion

Fig. 4 Different HH Sizes

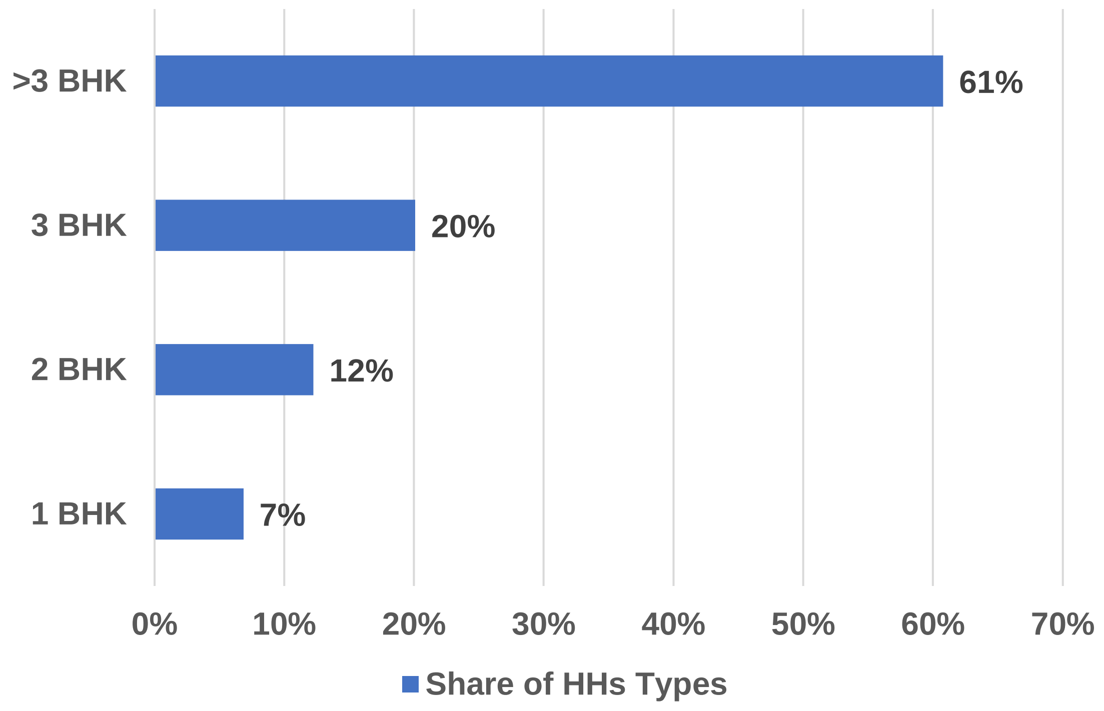
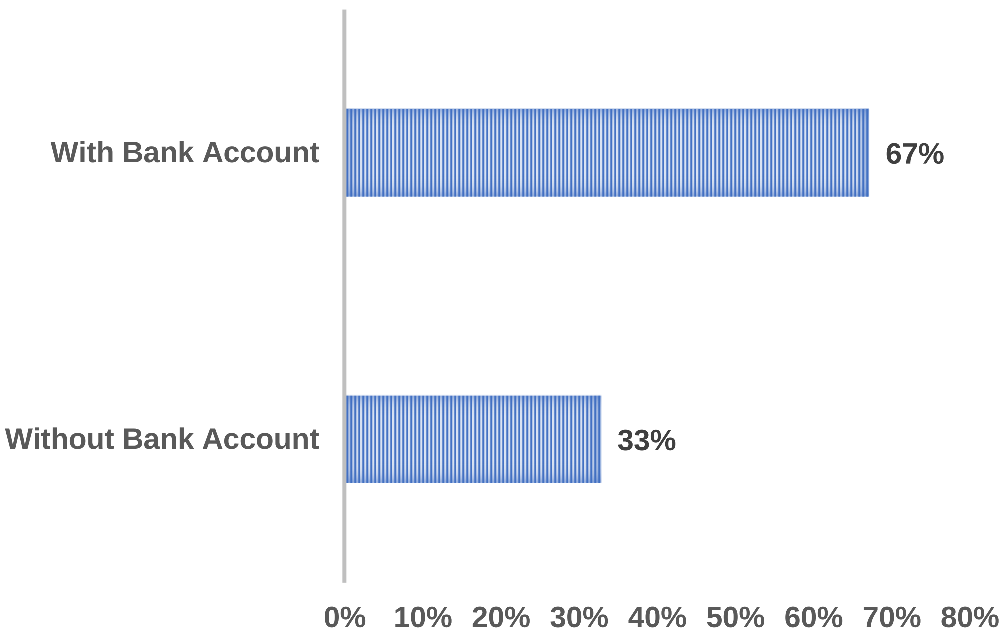


Fig. 5 Banking Rate



5 Country Context

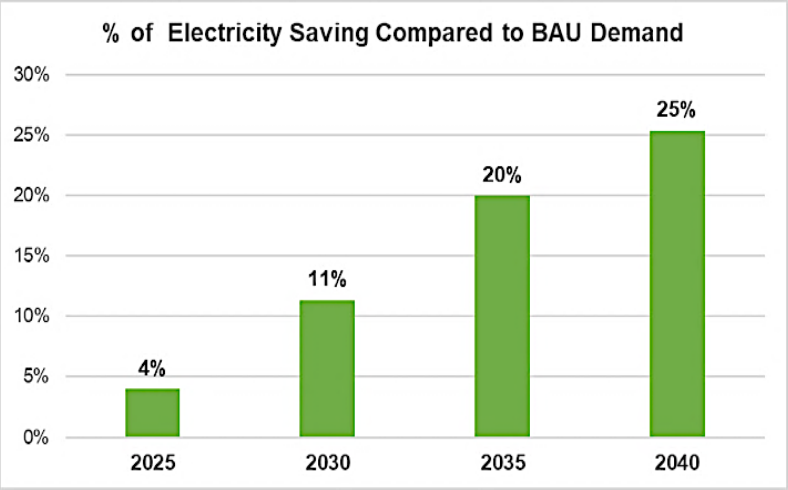
Policies and Regulatory Frameworks

- **National Energy Policy (under review), National Energy Efficiency Bill (under review),**
- **National Energy Efficiency Action Plan (NEEAP),**
- **National Energy Efficiency Strategy (NEES),**
- **Nationally Determined Contributions (NDC), Long-term Climate-Development Strategy (LTS),**
- **Minimum Energy Performance Standards (MEPS) for Refrigerators and Air-conditioners.**

Tab. 2 Electricity Savings Potential in the NEEAP

Sector/Measure	Energy Savings Potential in 2020 (GWh/y)	Energy Savings Potential in 2030 (GWh/y)
Electricity Demand		
On-grid household lighting	25	59
Streetlighting	0.31	2.39
Buildings	10	79
Industry	4	50
Total Savings on the Demand Side	**39.3**	**190.4**
Power Distribution Sector		
Electricity loss reductions	22.8	177.7

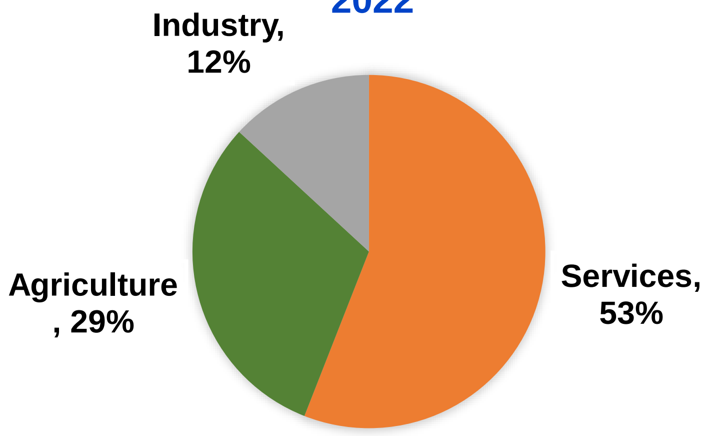
Fig. 6 NEES Targets 2025 – 2040



6 Country Context

Economic and Climatic context

FIG. 7 SECTORIAL GDP CONTRIBUTION 2022

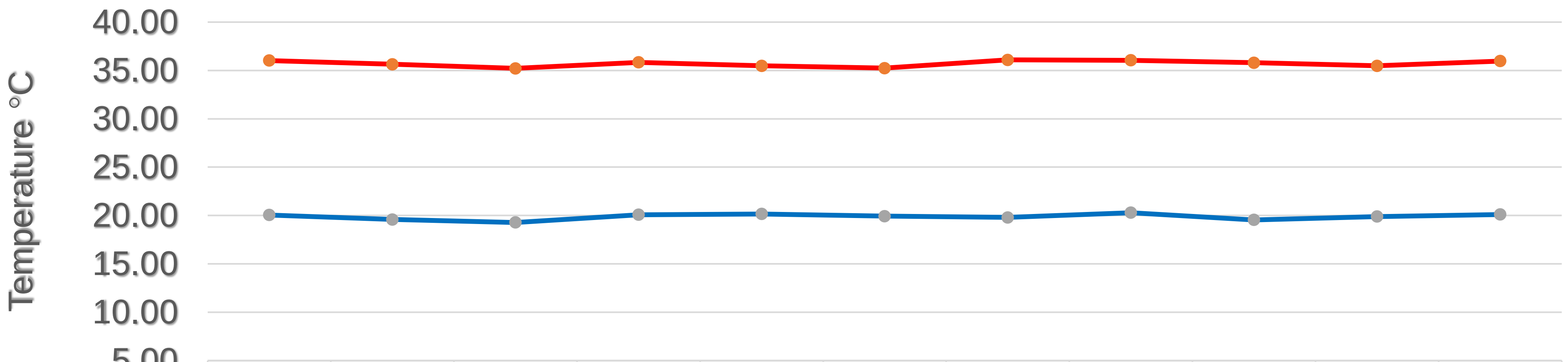


Year	2014	2016	2018	2020	2021	2022
Nominal GDP (millions of Dalasi)	51,309.00	64,389.00	80,445.00	93,329.00	105,487.00	117,600.00
Nominal GDP (% Change)	-1.4	1.9	7.2	0.6	5.3	4.5
GDP at Constant prices (% change)	-1.5	1.9	7.2	0.6	5.2	4.3

Country Context

Economic and Climatic context

Fig. 8 Annual Temperature 2010 – 2020 (DWR)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Max °C	36.02	35.64	35.21	35.83	35.49	35.25	36.09	36.05	35.79	35.48	35.97
Min °C	20.05	19.59	19.28	20.09	20.16	19.93	19.80	20.29	19.55	19.90	20.11

Max °C   Min °C

Country Context

Energy & Electricity

Fig. 9 Distribution of Final Energy Consumption by Fuel

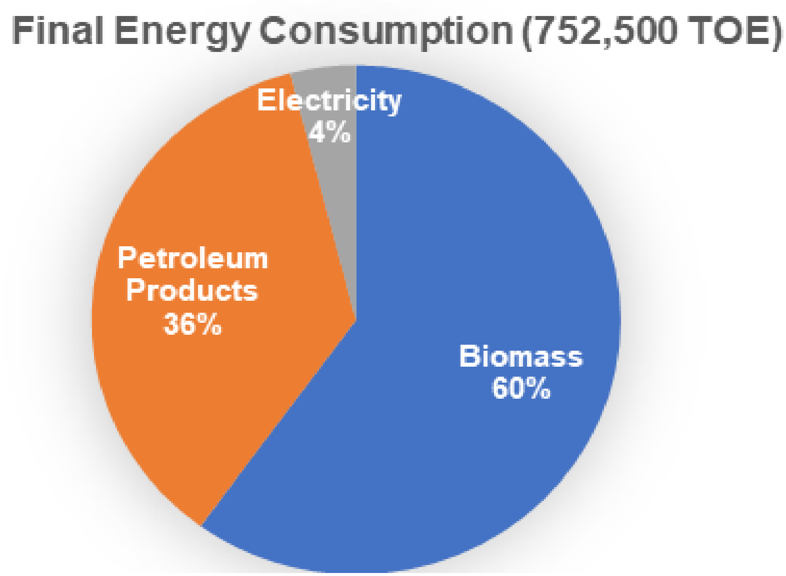
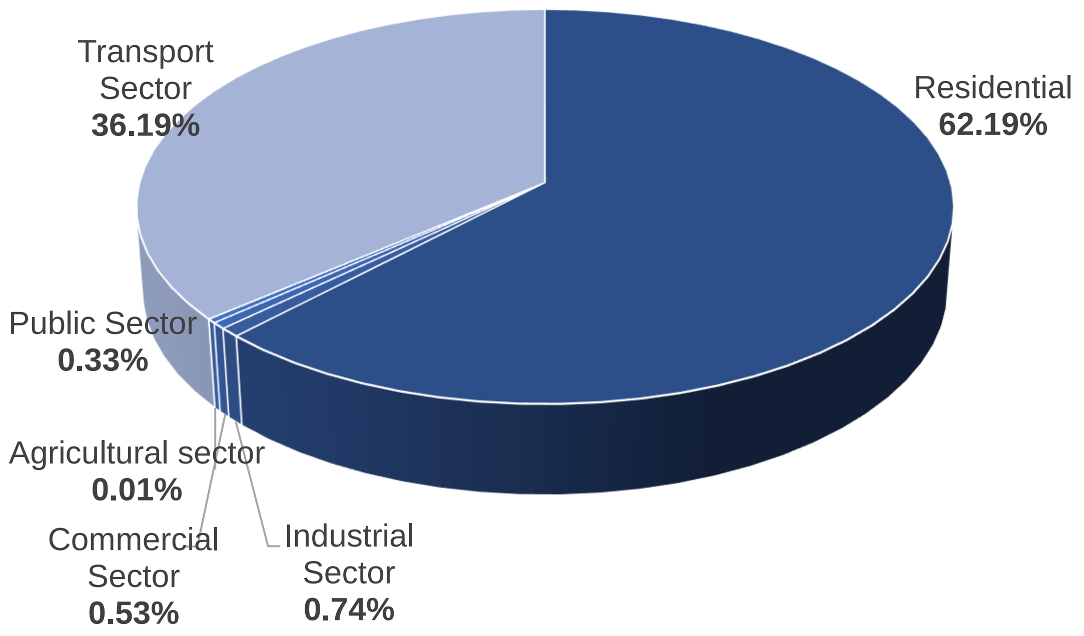


Fig. 10 Distribution of Final Energy Consumption by Sector



9

Country Context

Energy & Electricity

Fig. 11 NAWEC's Number of Customer

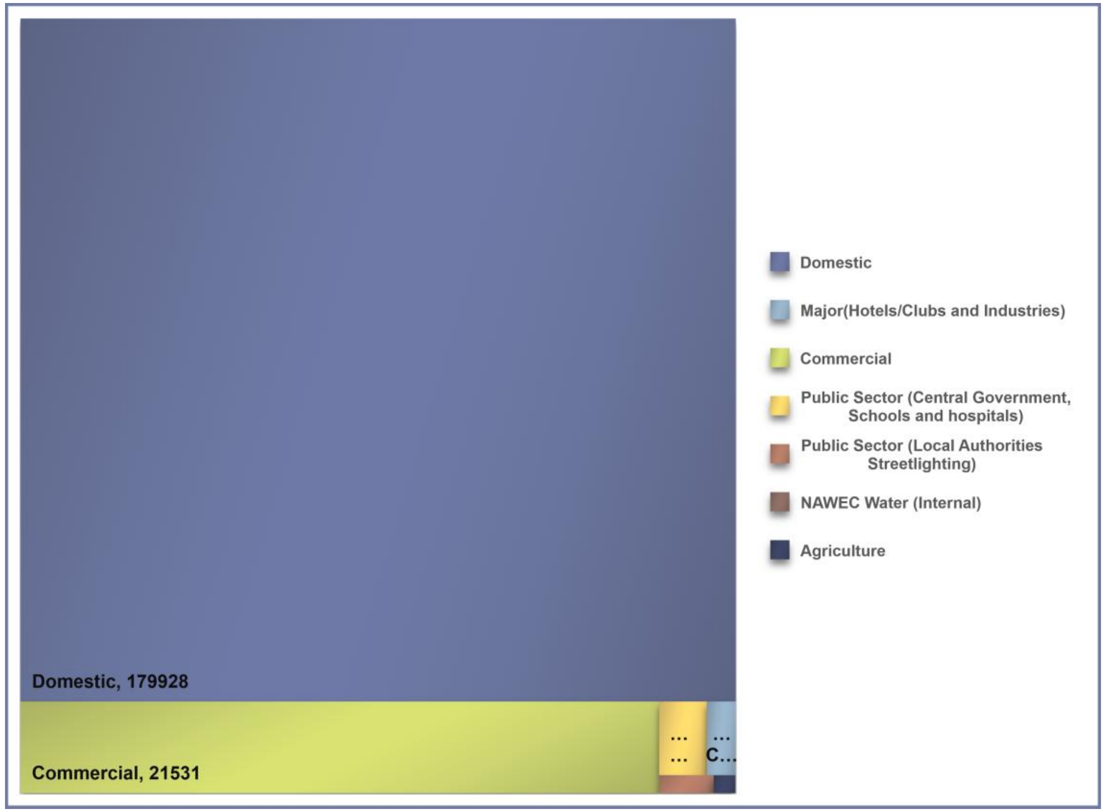
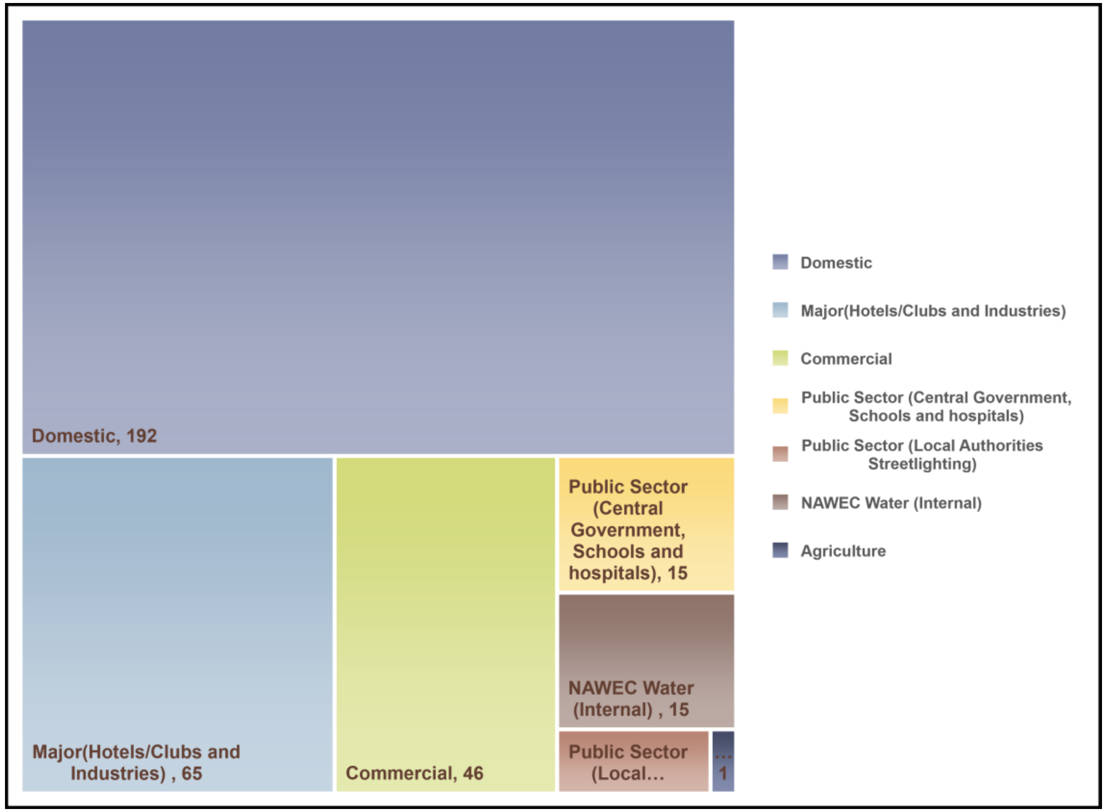


Fig. 12 Electricity Consumption (GWh) by customer category



Energy & Electricity

Fig. 13 Sales (GWh) by Customer Category in 2017 - 2019 (NAWEC)

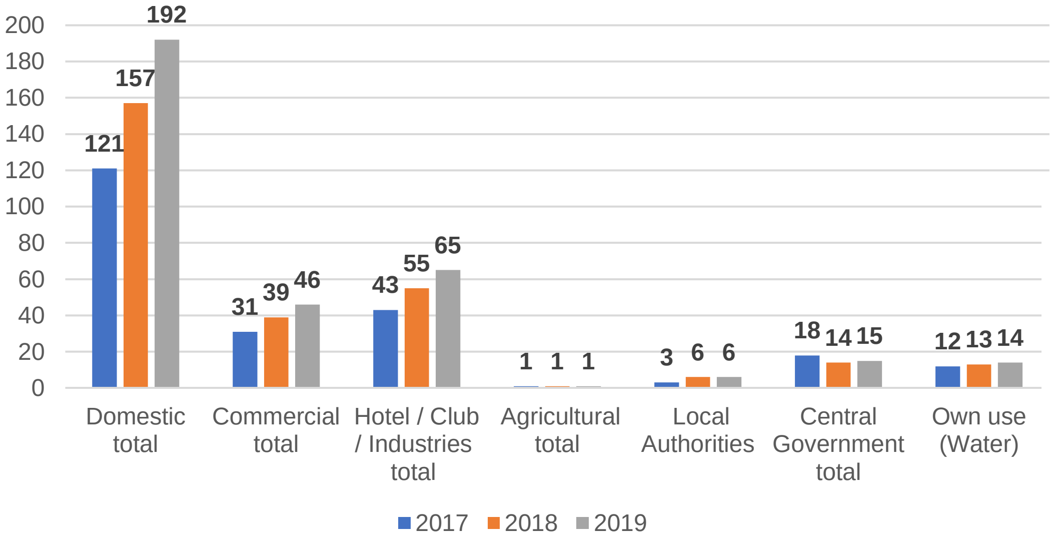
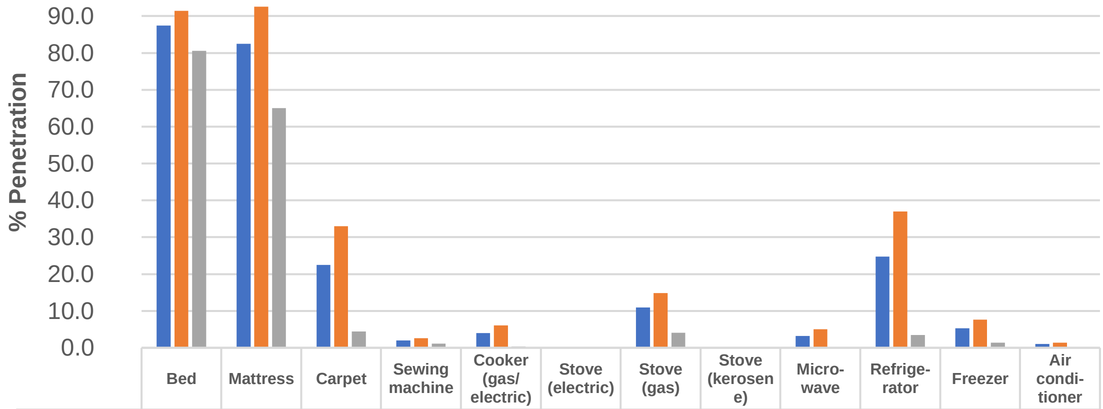


Fig. 14 Household Ownership of Electrical Appliances - IHS 2015/16 (GBOS)



	Bed	Mattress	Carpet	Sewing machine	Cooker (gas/ electric)	Stove (electric)	Stove (gas)	Stove (kerosen e)	Micro-wave	Refrige-rator	Freezer	Air condi-tioner
THE GAMBIA	87.4	82.5	22.5	2.0	4.0	0.1	10.9	0.1	3.2	24.7	5.3	1.0
Urban	91.4	92.6	33.0	2.6	6.1	0.2	14.8	0.1	5.0	37.0	7.6	1.4
Rural	80.6	65.0	4.4	1.1	0.3	0	4.1	0	0.1	3.5	1.4	0.2

Country Context

Energy & Electricity

Tab. 3 Electricity Tariff Comparisons with Selected W/African countries

Country	Effective Residential Tariff (US cents) 100 kWh/Month	2020 Monthly Per Capita GDP (USD)	% of Monthly Per Capita GDP Spent on 100 kWh of electricity
The Gambia	**20.8**	**66.04**	**31.50%**
Senegal	17.8	124	14.35%
Ghana	6.6	194.05	3.40%
Ivory Coast	12.5	193.8	6.45%

Tab. 4 Prepaid Meter Electricity Tariff 2013 & 2023

Prepayment Meter: Electricity Tariff: per kWh		
Description	**Old Tariff (GMD) 2015**	**New Tariff (GMD) as at 10/04/2023**
Domestic	**10.14**	**13.85**
Commercial	10.90	14.90
Hotels/Clubs/Industries	**11.65**	**15.90**
Central Government	10.90	16.20
Local Government	10.90	16.20
Agriculture	10.14	13.89

Country Context

Cooling Standards

Minimum energy performance standards (MEPS) – Part 1 – refrigerating appliances (ECOSTAND 071-1:2017)

Minimum energy performance standards (MEPS) – Part 2 – Air Conditioners (ECOSTAND 071-2:2017)

Adopted by The Gambia through The Gambia Standards Bureau (TGSB). However, these standards are undergoing gazetting process and have not yet been put into force.

Discussions/Q&A

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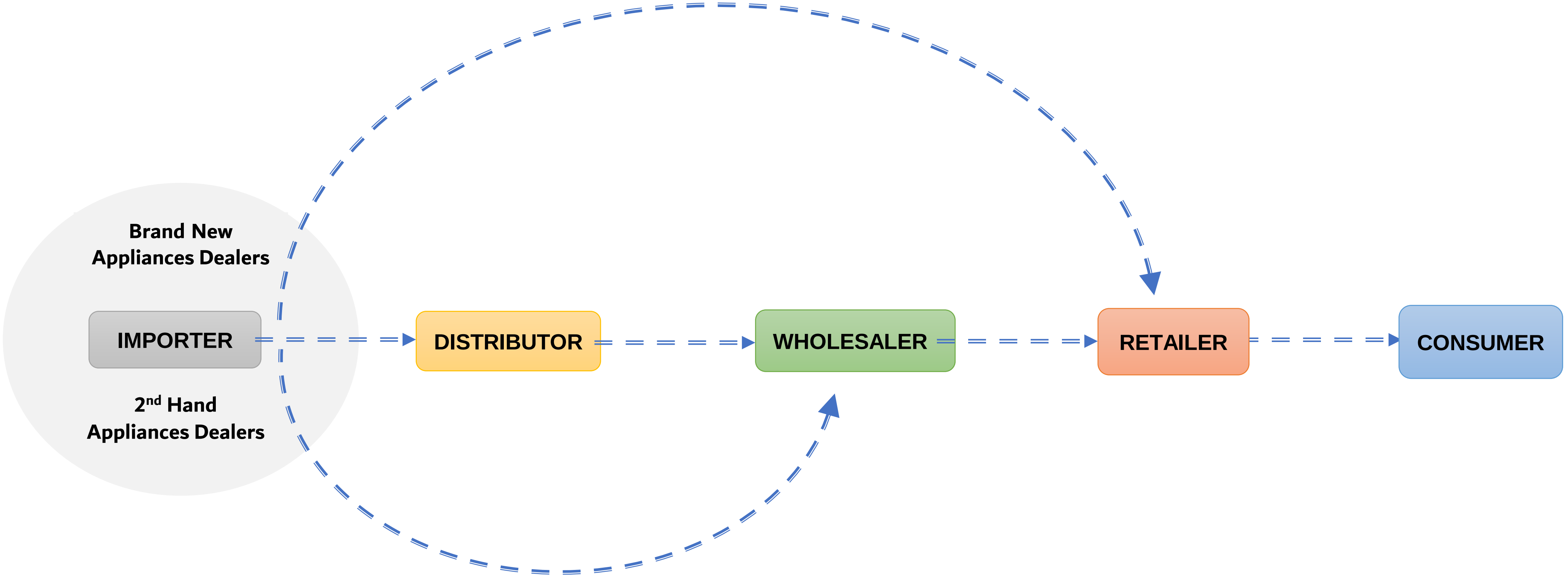
1 CONTENT

Presentation Slides III

- **Survey Results - Residential & Hotel Refrigerating Equipment**
  - **Supply Side**
  - **Demand Side**

Supply Side

Fig. 15 Supply Chain for Cooling Appliances in The Gambia



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Market Assessment of Refrigerating Equipment

Supply Side

Tab. 5 Total Import Values & Volumes of Refrigerating Appliances in The Gambia 2018 – 2022 (Trade Statistics)

Year	2018	2019	2020	2021	2022
Refrigerating Equipment (CIF Values - GMD)	36,434,201	55,613,395	55,647,364	73,106,602	108,807,441
Stock of Refrigerating Equipment	498,416	513,829	254,297	122,225	791,928
% Increase/decrease	-	3%	-51%	-52%	548%

Market Assessment of Refrigerating Equipment

Supply Side

Tab. 6 Total Import Volumes (mt) of ODS in the country 2012 – 2015 (ODS Survey Report)

ODS Categories	ODS Gases	2012 (mt)	2013 (mt)	2014 (mt)	2015 (mt)
HFC	HFC – 32	–	–	–	–
	HFC – 134a	9	11	13	15
	HFC – 152a	–	–	–	–
HFC BLENDS	R404A	6	7	8	10
	R407C	5	6	10	12
	R410A	4	6	8	9
OTHER ALTERNATIVES	HC – 290	–	–	–	–
	HC – 600a	4	5	7	8

Market Assessment of Refrigerating Equipment

Supply Side

Tab. 7 Common Available Brands for Refrigerating Appliances and Number of Suppliers

New Refrigerating Appliances		Second Hand Refrigerating Appliances	
BRAND	# OF SUPPLIERS	BRAND	# OF SUPPLIERS
LG	1	HOT POINT	4
WESTPOINT	1	BEKO	2
HISENSE	3	INDESIT	2
ROCH	3	BOSCH	2
SHARP	4	LG	2
VESTEL	1	LIEBHERR	1
ELBEE	1	WHIRLPOOL	1
CROFT	1	ZANUSSI	1
HAMBURG	1	GRAM	1
TCL	1	ELECTROLUX	4
BEKO	1	SHARP	1
ASTECH	1		
SOLSTAR	1		
SAMSUNG	1		
ICONA	1		

6

Market Assessment of Refrigerating Equipment

Types of RAS Found

Market Assessment of Refrigerating Equipment

Types of RAS Found

8

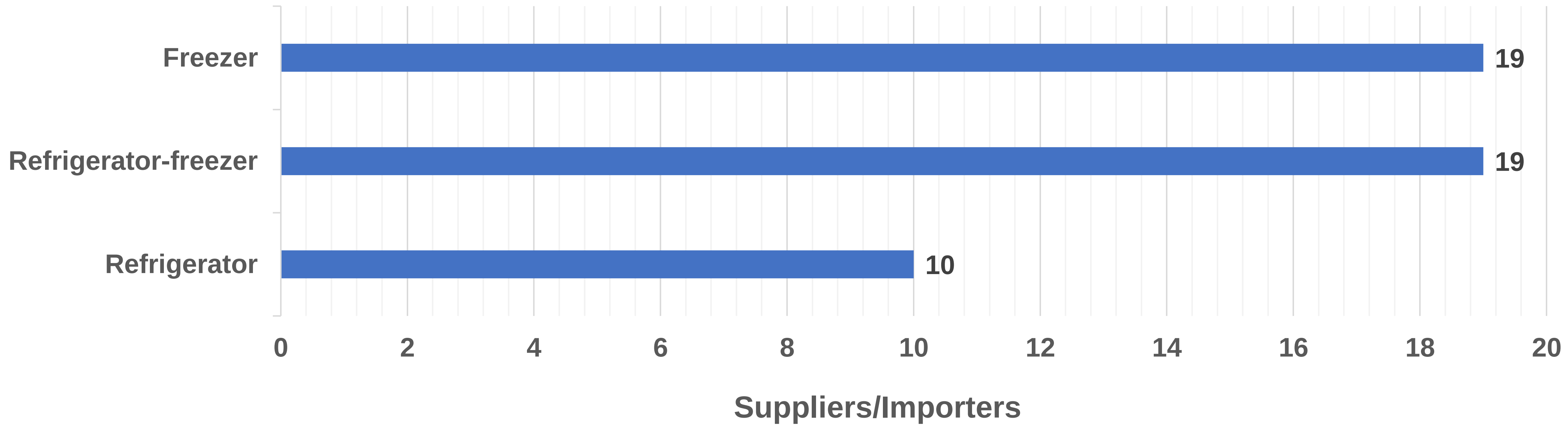
Market Assessment of Refrigerating Equipment

Types of RAS Found

Market Assessment of Refrigerating Equipment

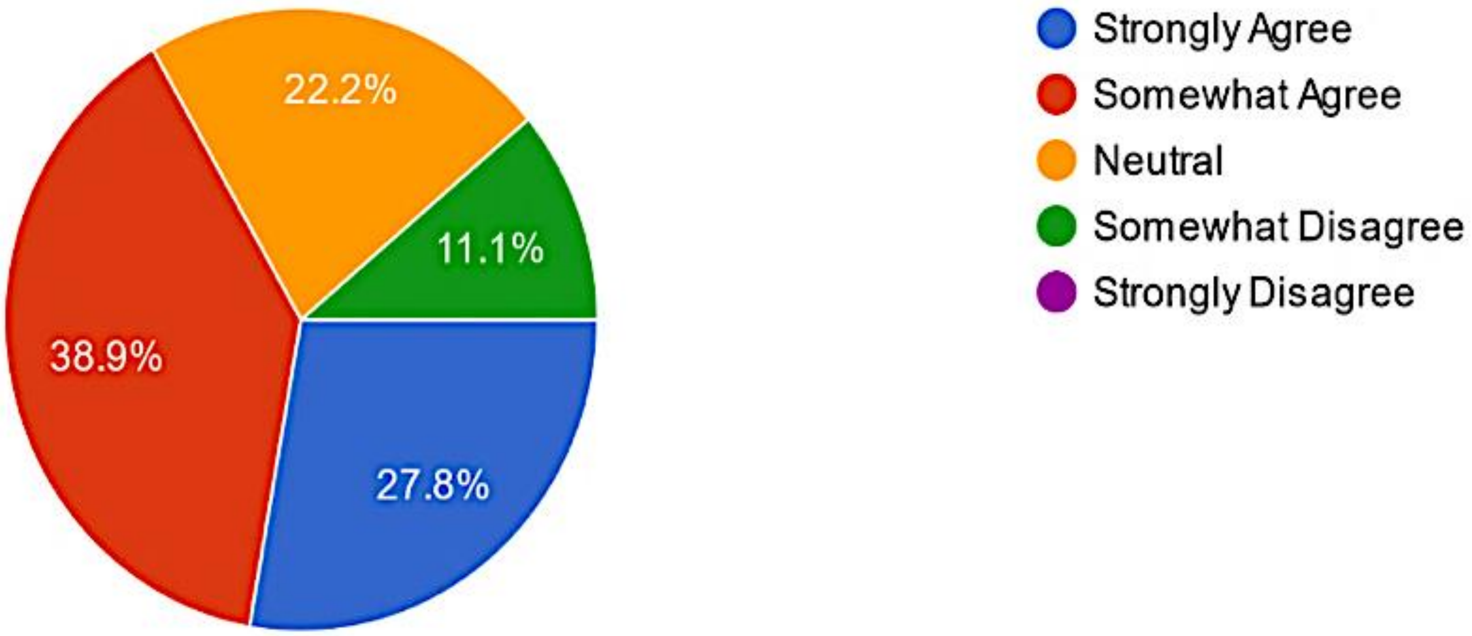
Supply Side

Fig. 16 Suppliers Providing Different Refrigerating Technologies



Supply Side

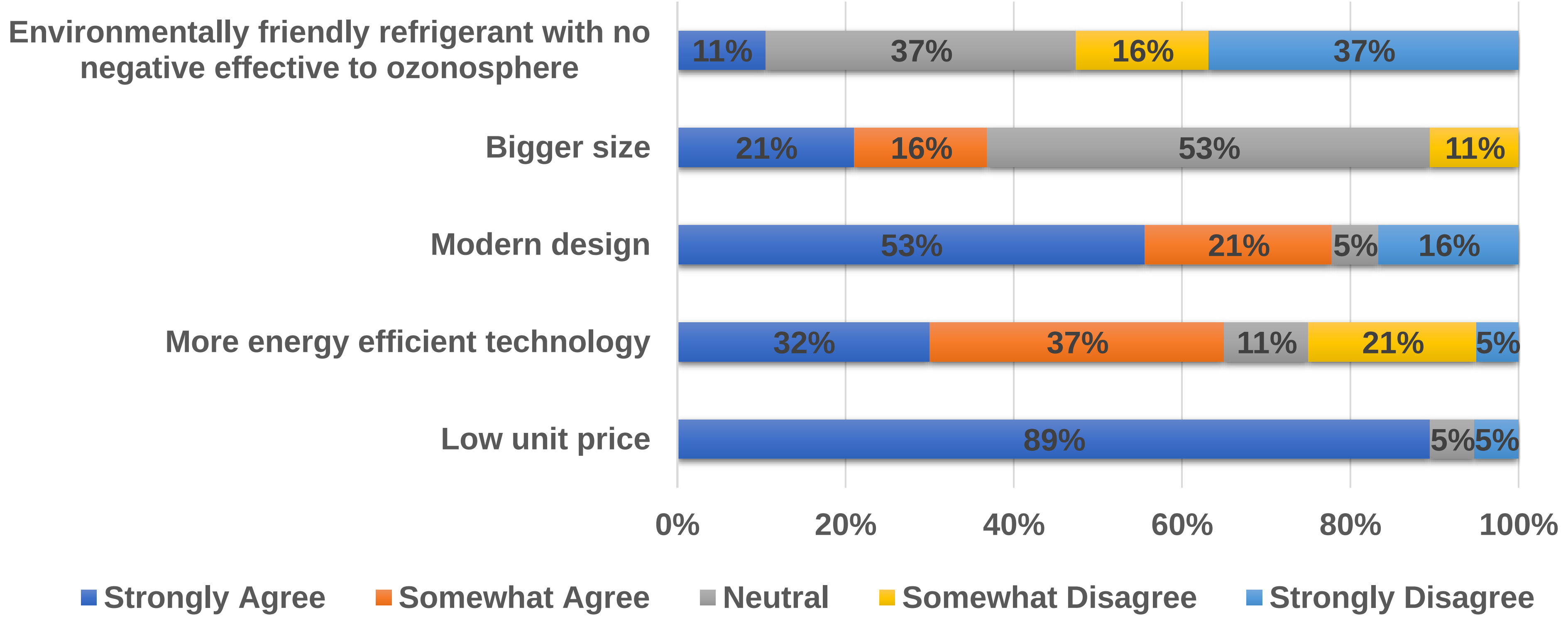
Fig. 17 Suppliers' Perceptions of Energy Efficiency Consideration by Customers



Market Assessment of Refrigerating Equipment

Supply Side

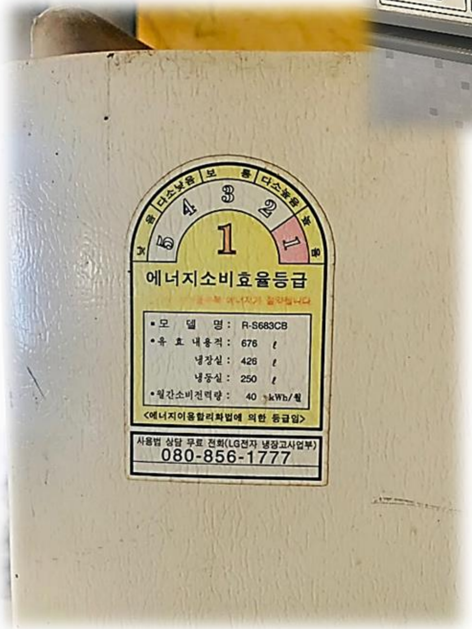
Fig. 18 Factors Affecting the Sales of Refrigerating Equipment by Consumers



12

Market Assessment of Refrigerating Equipment

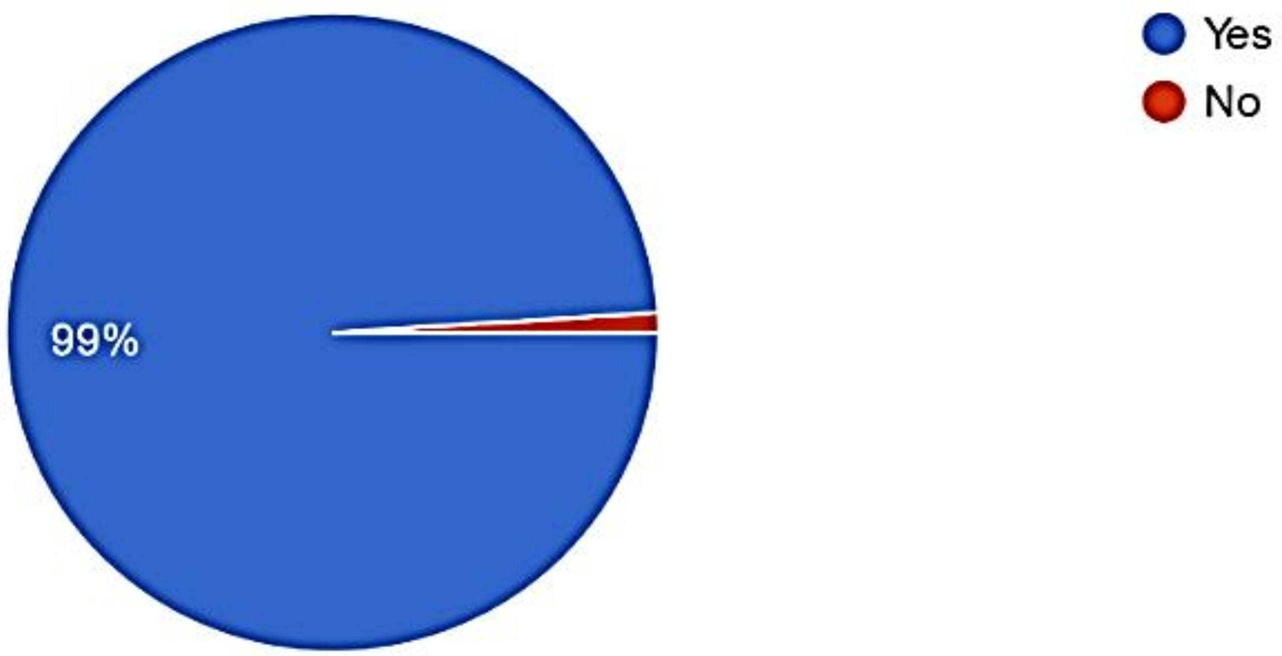
Some Labels Found



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 19 Households owning Refrigerating Equipment



Market Assessment of Refrigerating Equipment

HH Assessment Photos

Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 20 Willingness to Pay Extra Cost

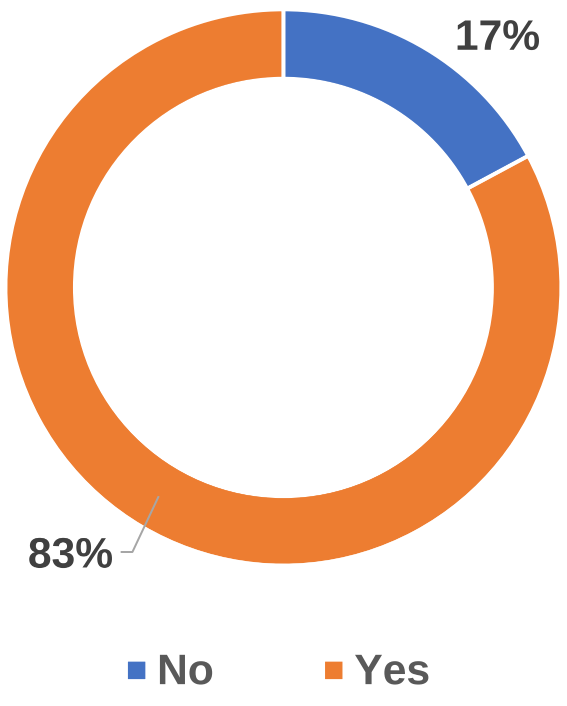
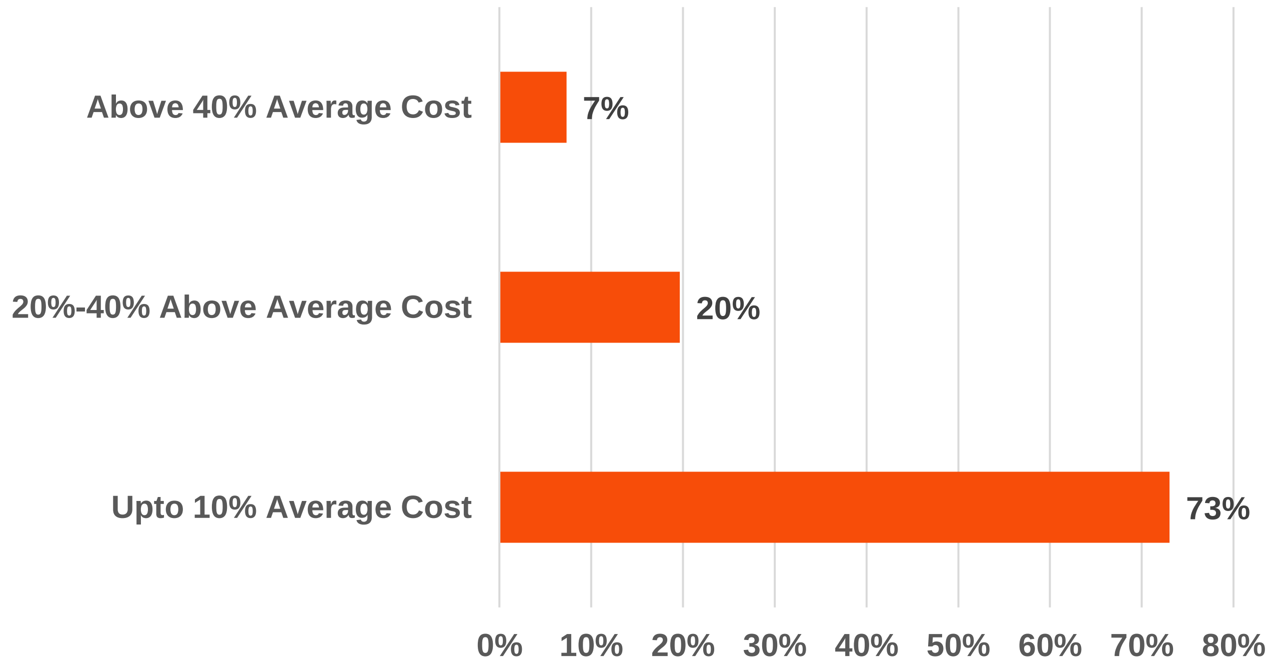
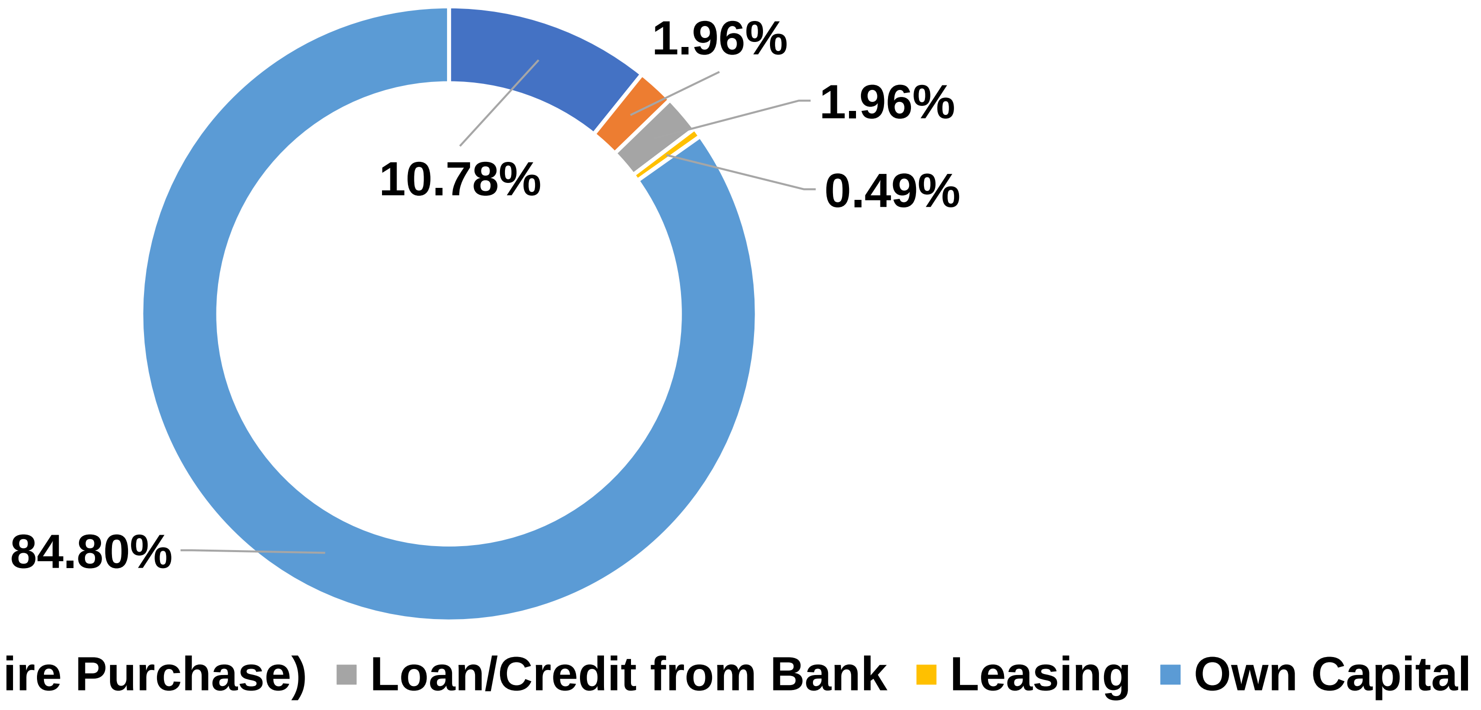


Fig. 21 By How much



Demand Side - Households

Fig. 22 Mode of Purchasing of the Refrigerating Appliances



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 23 Distribution of Monthly Households' Electricity Bills

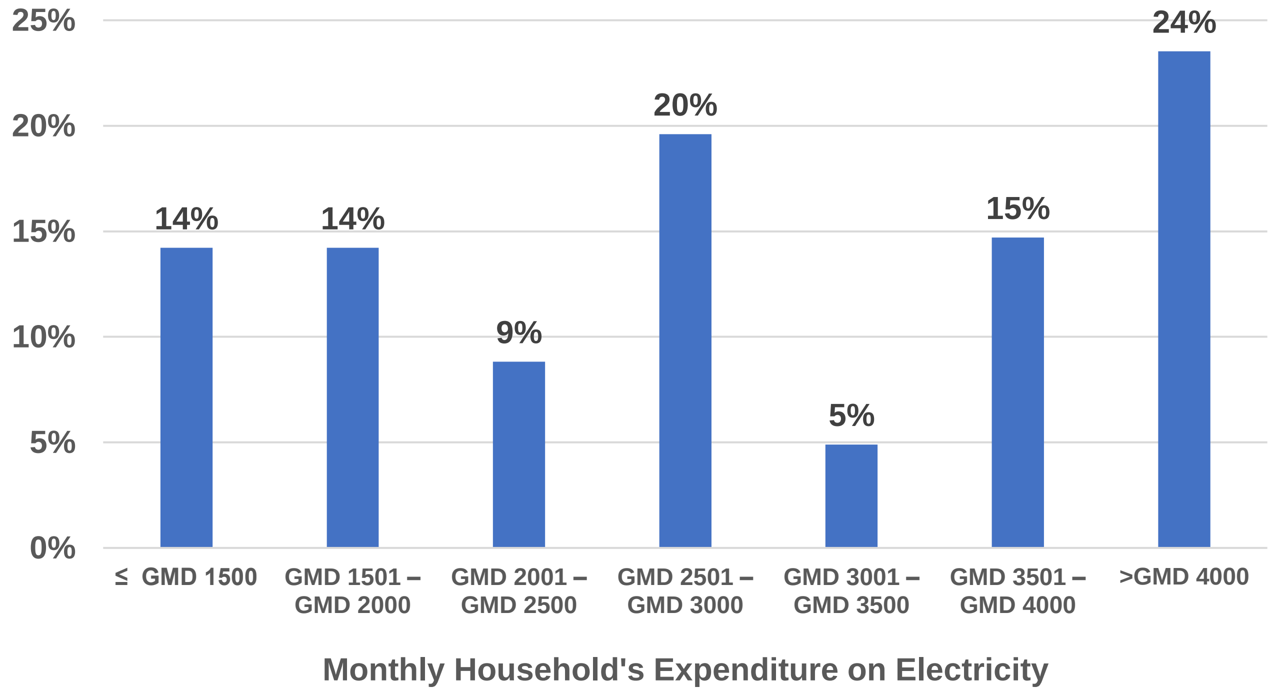
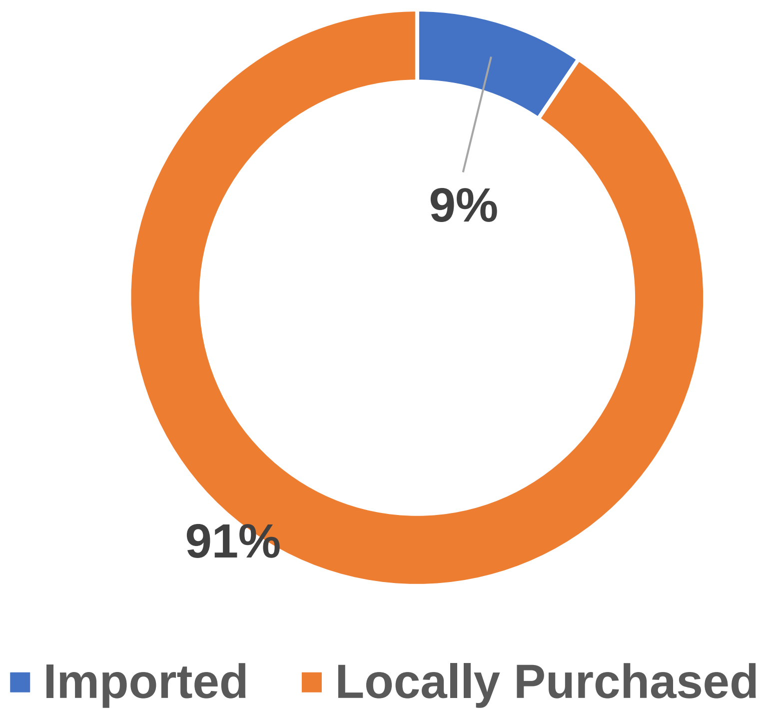


Fig. 24 Modes of Acquisition of Refrigerating Appliance



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 25 Refrigerating Equipment Types found in the Residential Sector

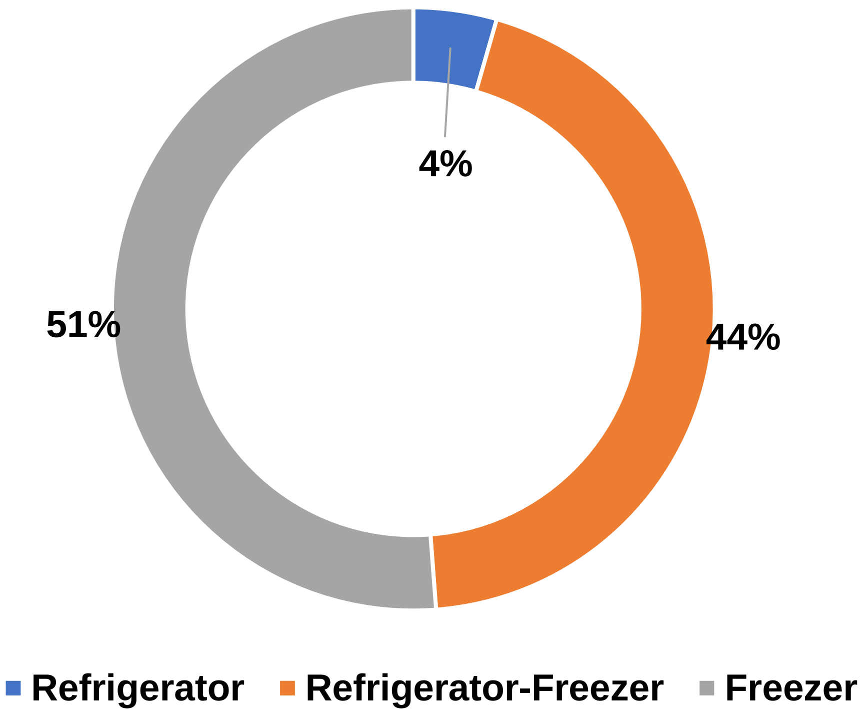
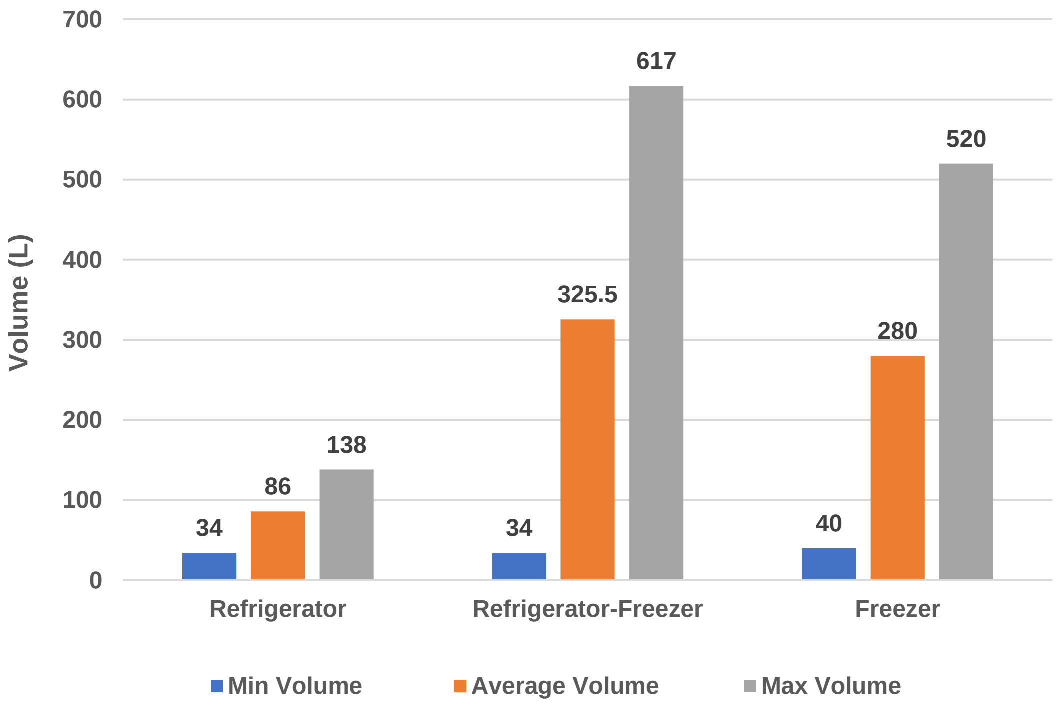


Fig. 26 Different Capacities (L) of Various Categories of Refrigerating Equipment



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 27 Share of Refrigerants Used in Households' Refrigerating Equipment

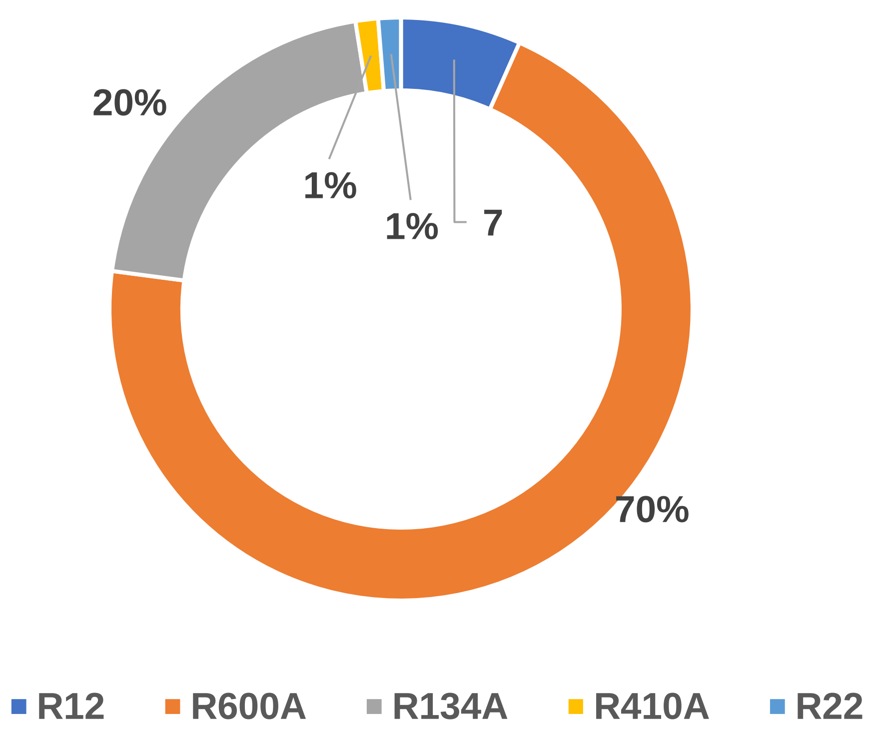
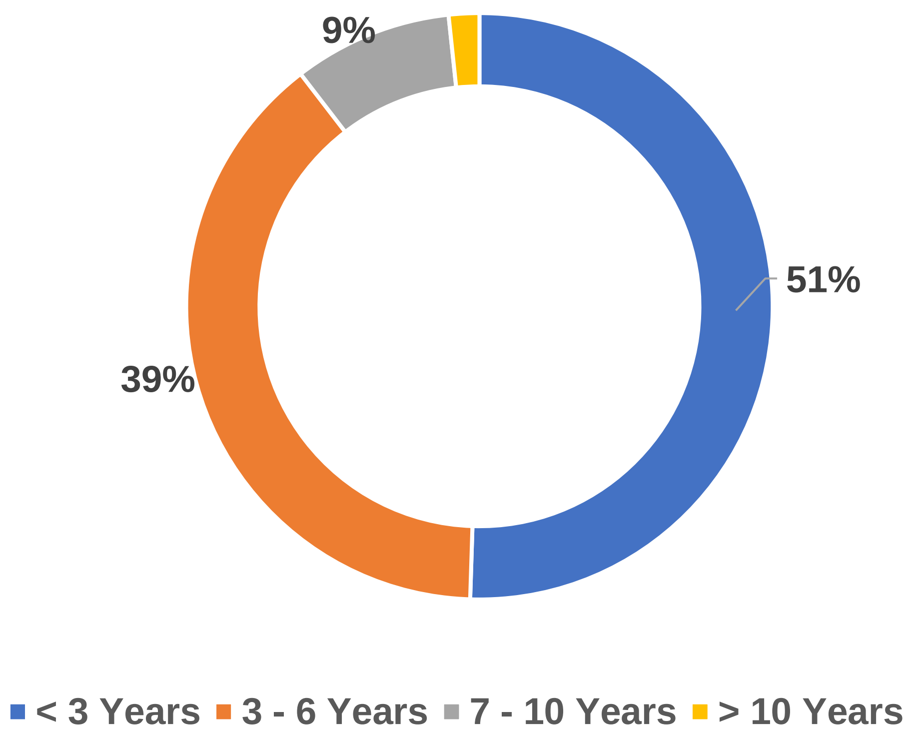


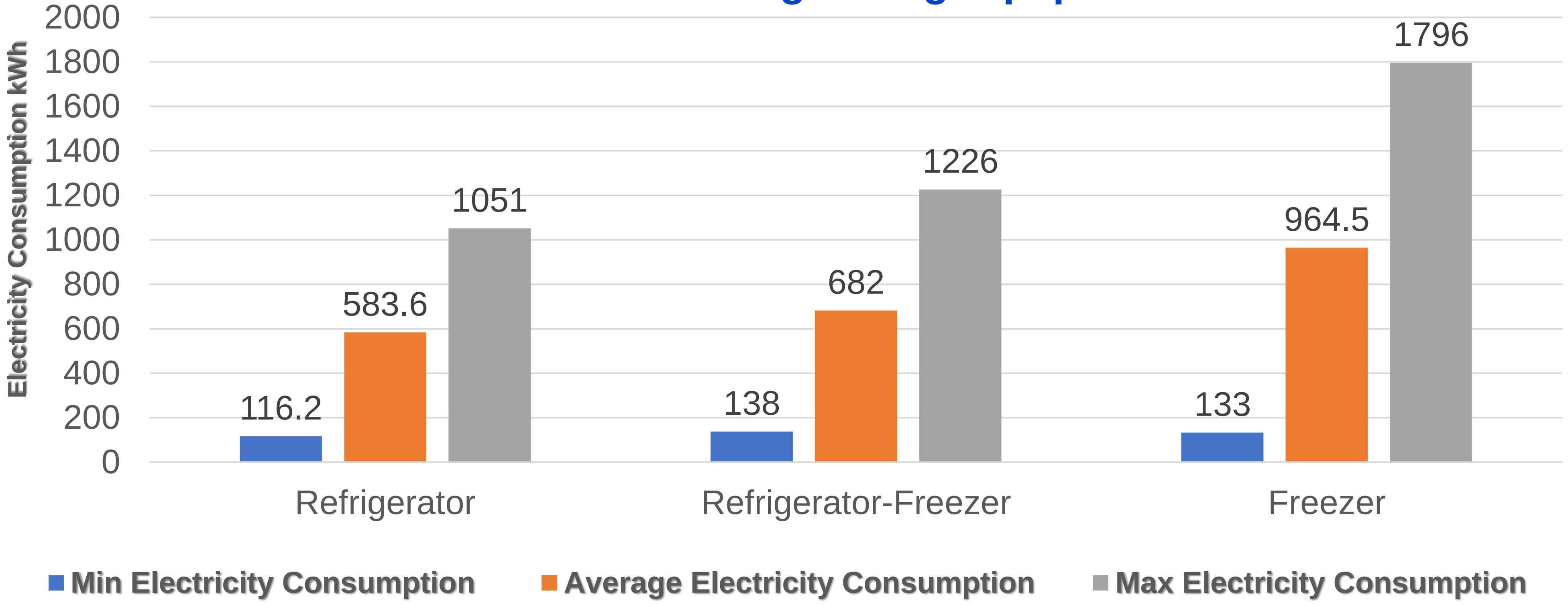
Fig. 28 Age of Different Refrigerating Equipment at Household Level



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 29 Annual Electricity Consumption of Different Refrigerating Equipment



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 30 Number of Doors for Different Refrigerating Appliances

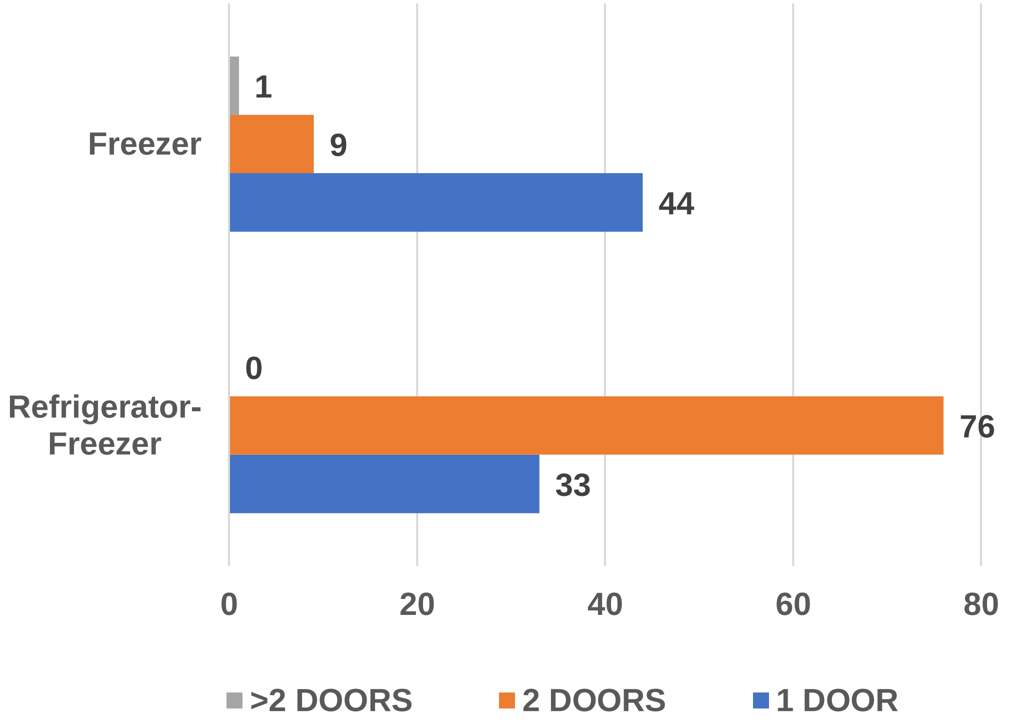
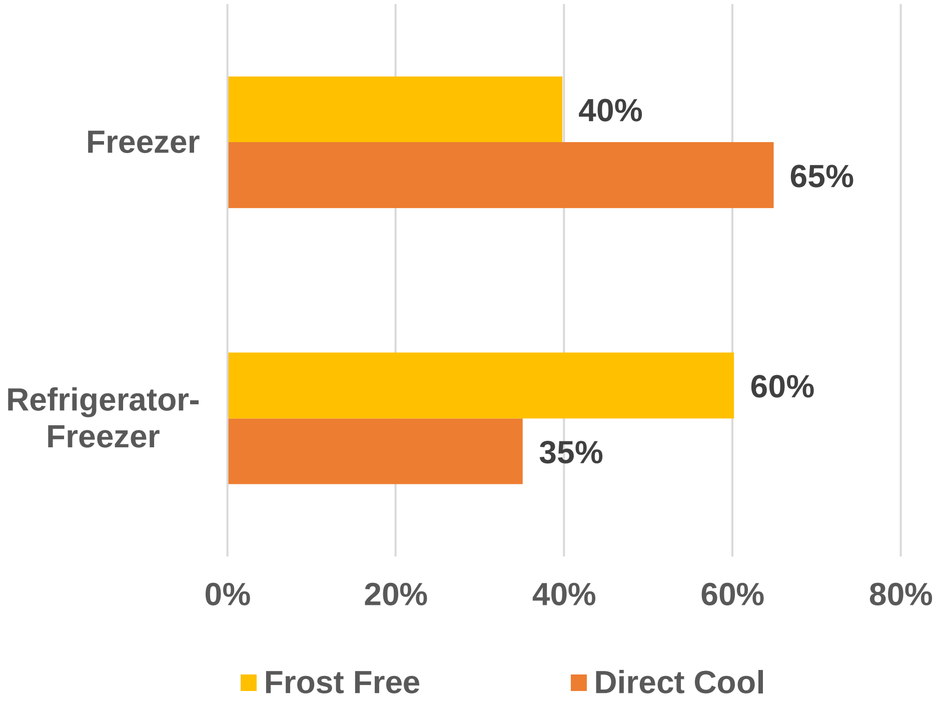
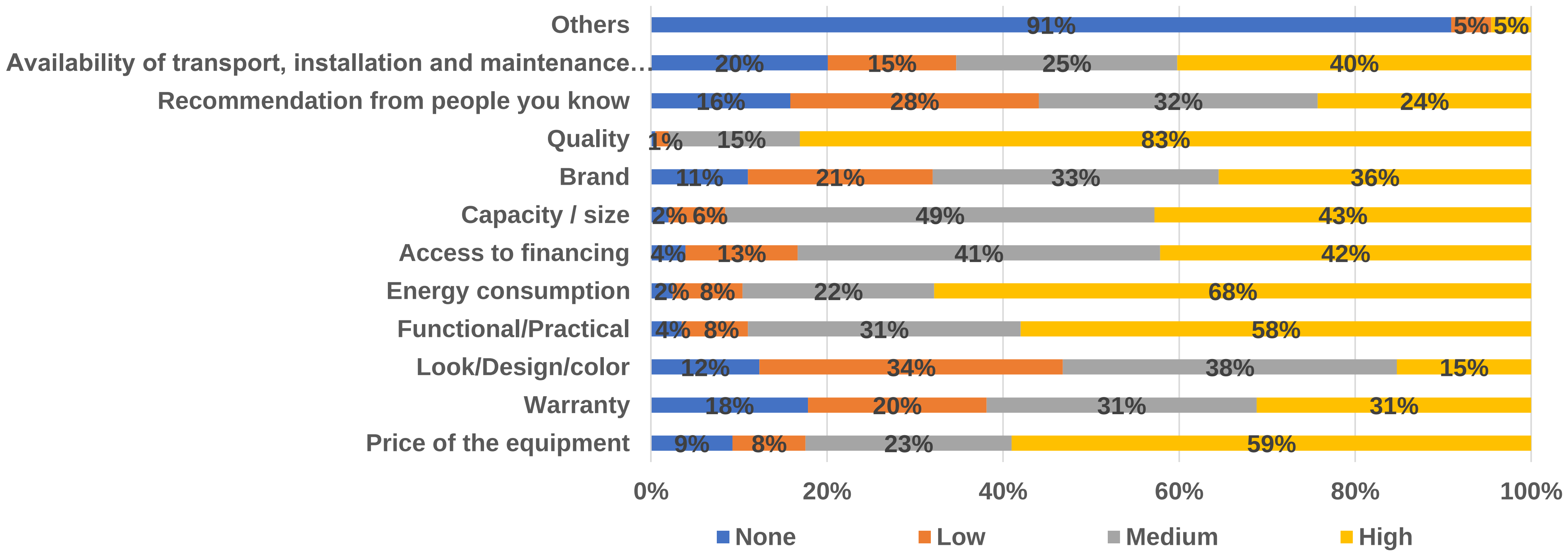


Fig. 31 Technology Type for Refrigerator-Freezers & Freezers



Demand Side - Households

Fig. 32 Factors Influencing the Purchasing Decision by Households



Market Assessment of Refrigerating Equipment

Demand Side - Households

Fig. 33 Awareness on Energy Efficient S&L

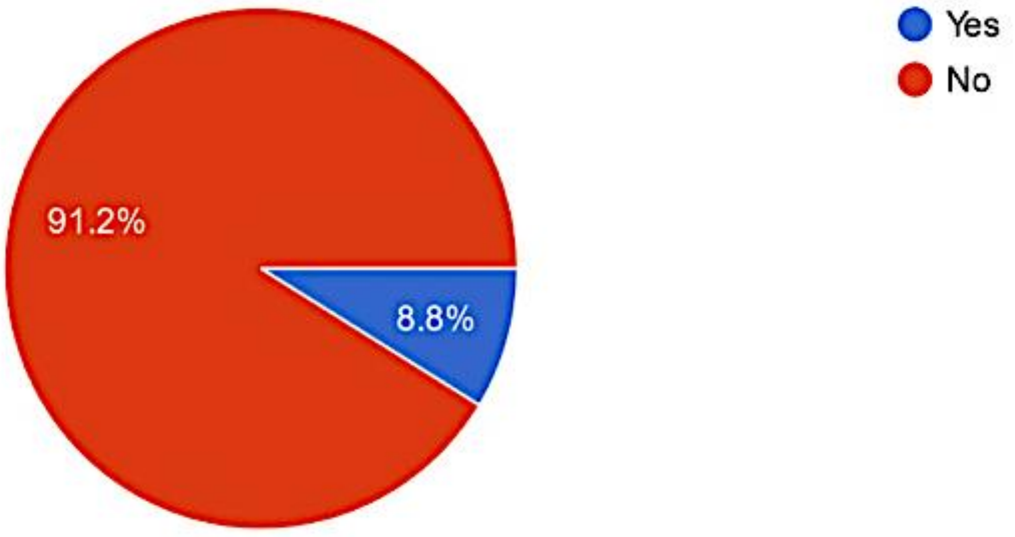
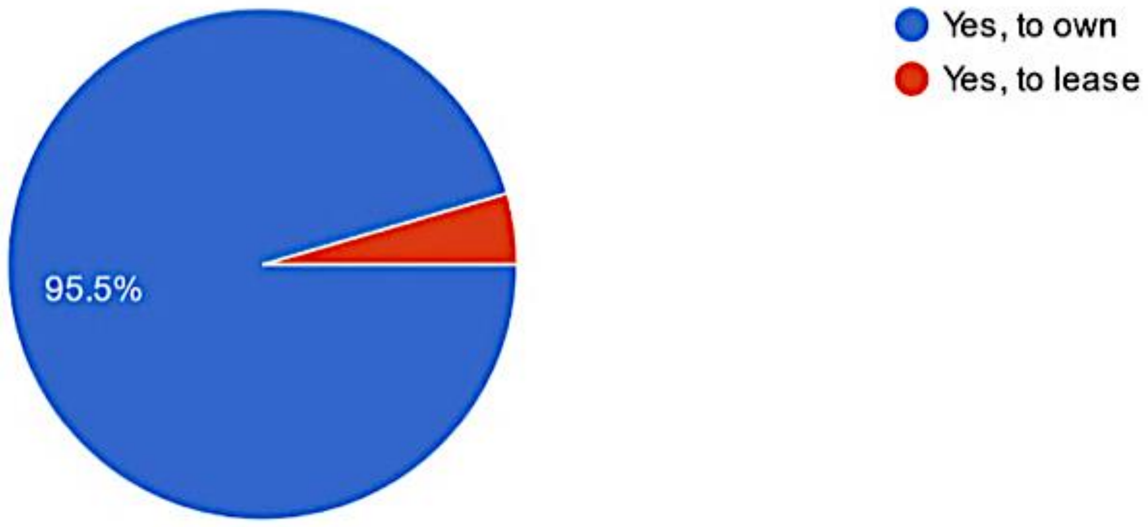


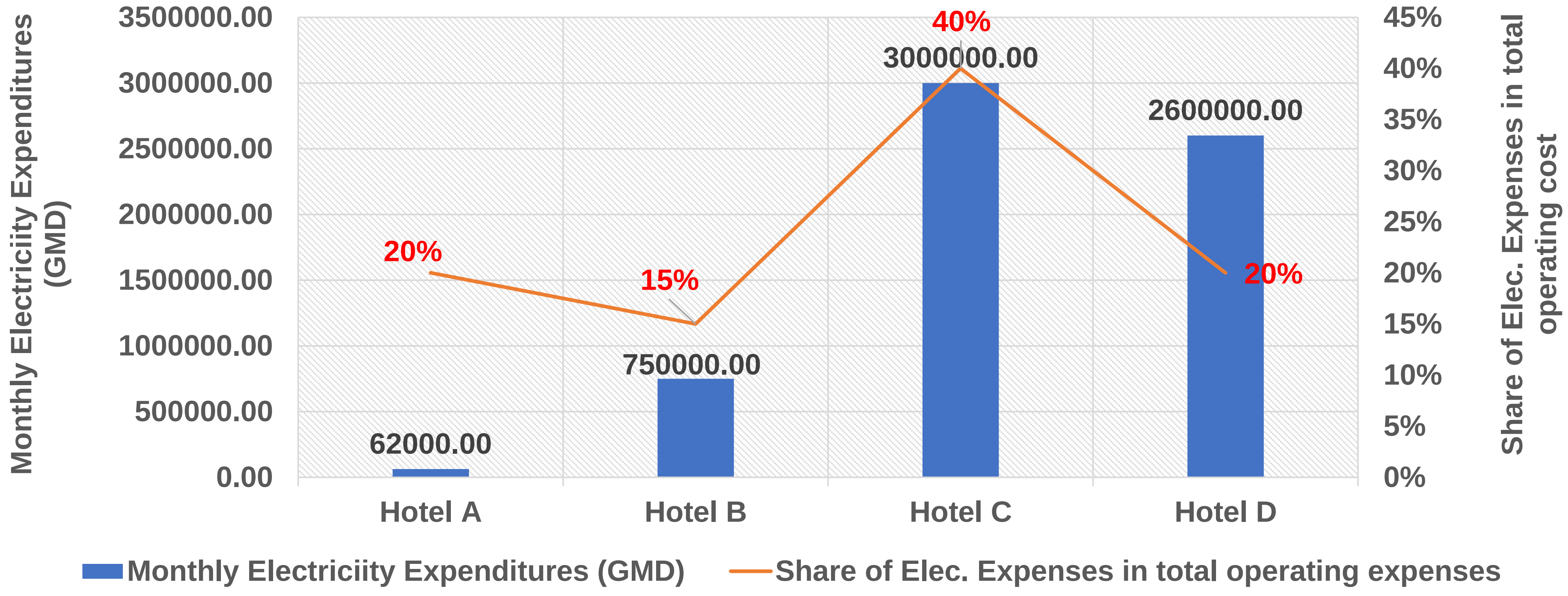
Fig. 34 Desire to own Refrigerating Equipment



Market Assessment of Refrigerating Equipment

Demand Side - Hotels

Fig. 35 Monthly Electricity Expenditures and Share of Electricity Expenses in Total Operating Cost



Market Assessment of Refrigerating Equipment

Demand Side - Hotels

Fig. 36 Share of Different Types of Refrigerating Equipment

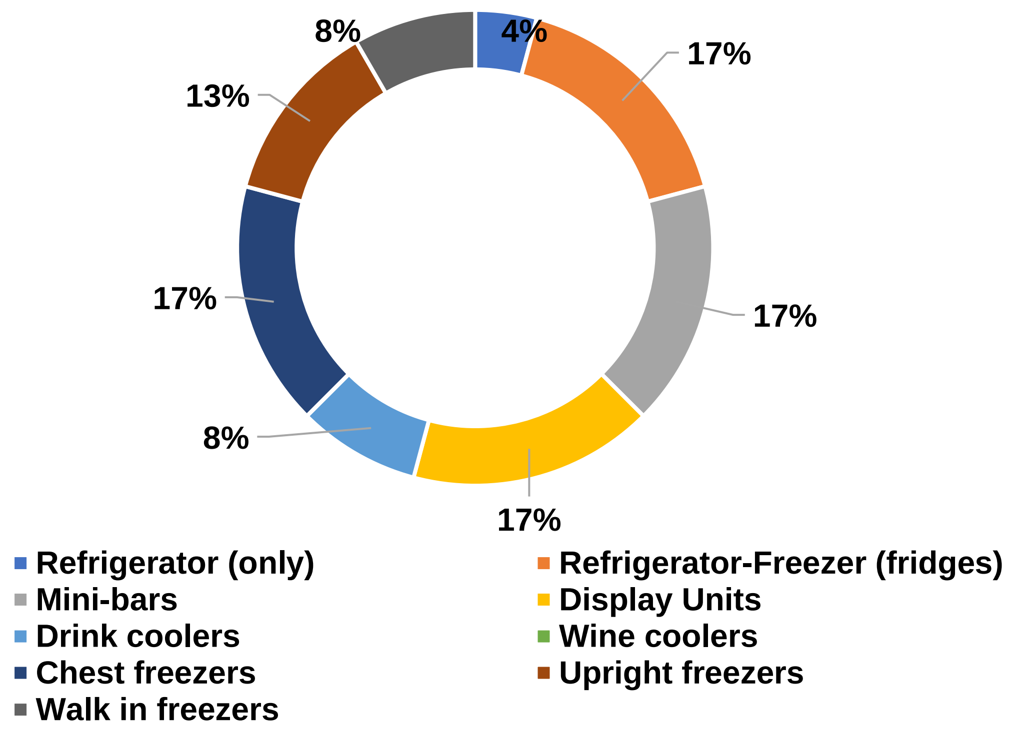
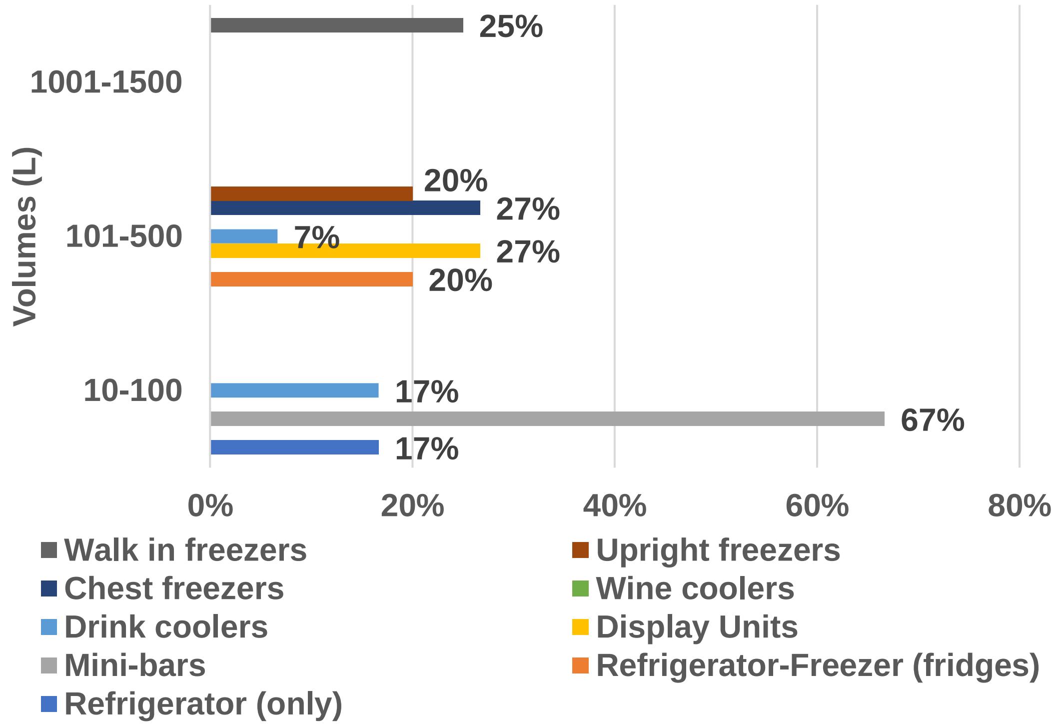


Fig. 37 Volumes of Different Types of Refrigerating Equipment



Market Assessment of Refrigerating Equipment

Demand Side - Hotels

Fig. 38 Share of Refrigerant Gases found Refrigerating Appliances in Hotels

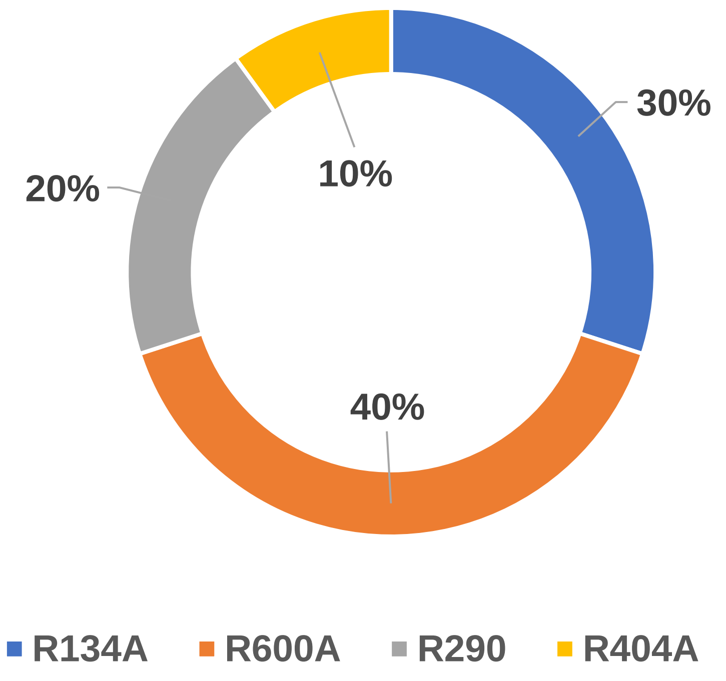
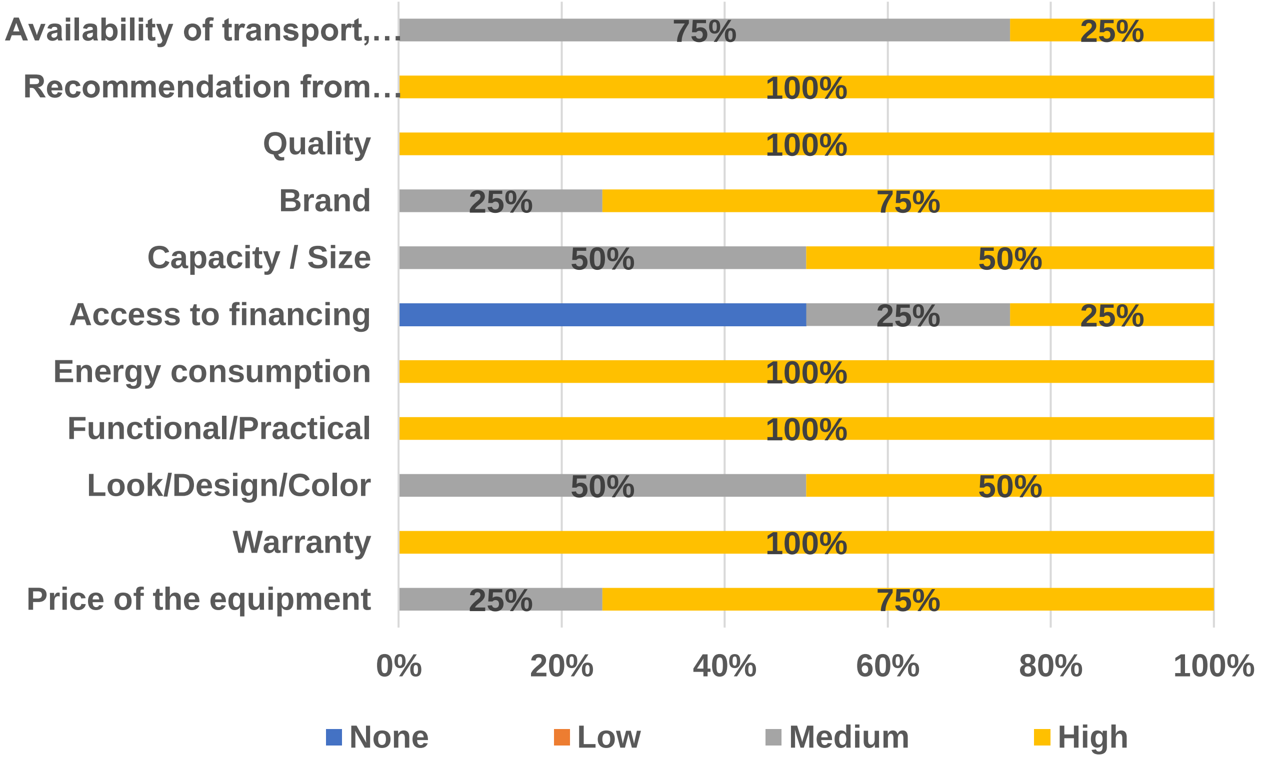


Fig. 39 Significance of Factors Influencing Hotels' Purchasing Decisions



Discussions/Q&A

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Presentation Slides IV

- Survey Results - Residential & Hotel Air-Conditioning Appliances
  - Supply Side
  - Demand Side

2

Market Assessment of Air-Conditioning Appliance

Supply Side

Tab. 8 Total Import Values & Volumes of Air-Conditioners in The Gambia 2018 – 2022 (Trade Statistics 2018)

Year	2018	2019	2020	2021	2022
Air-conditioners (ACs) (CIF Values - GMD)	1,233,036.7	4,167,896.8	86,543.5	2,382,237.8	6,938,145.5
Stock of ACs	44,256	107,522	90,252	116,895	155,220
% Increase/decrease	–	143%	-16%	30%	33%

Supply Side

Tab. 9 Available Air-Conditioner Brands and Number of Suppliers for each brand

New Air-Conditioning Appliances	
BRAND	**# OF SUPPLIERS**
LG	1
WESTPOINT	1
HISENSE	3
ROCH	3
SHARP	4
VESTEL	1
ELBEE	1
CROFT	1
HAMBURG	1
TCL	1
BEKO	1
ASTECH	1
SOLSTAR	1
SAMSUNG	1
ICONA	1

Market Assessment of Air-Conditioning Appliance

Suppliers AC Photos

Market Assessment of Air-Conditioning Appliance

HH AC Photos

Market Assessment of Air-Conditioning Appliance

Supply Side

Fig. 40 Types of Air-Conditioners Sold in The Gambian Market

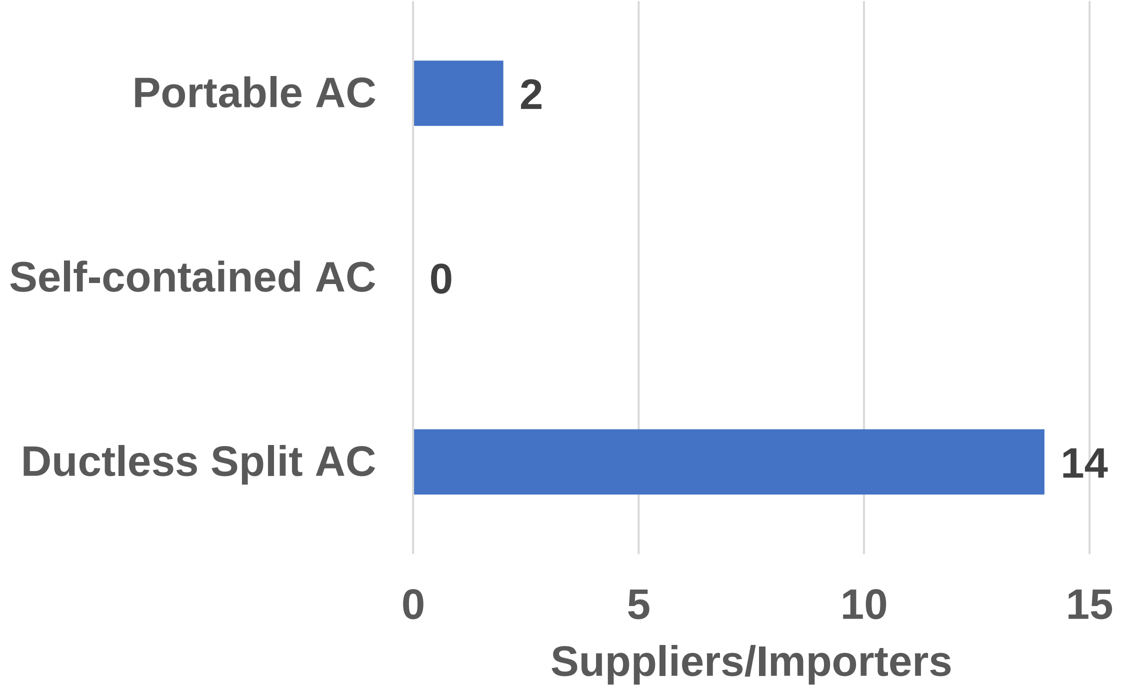
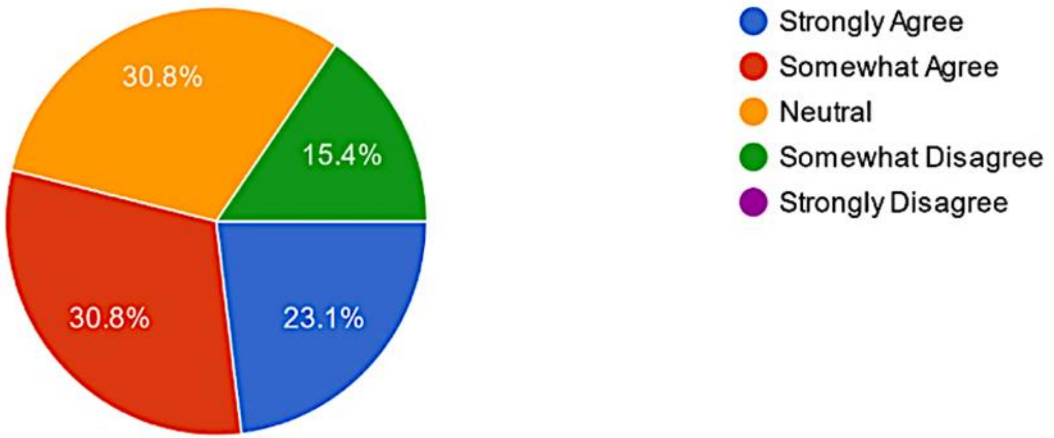


Fig. 41 Suppliers Perception of Energy Efficiency Consideration by Customers



Market Assessment of Air-Conditioning Appliance

Demand Side - Households

Fig. 42 Modes of Acquisition of Air-conditioning Equipment

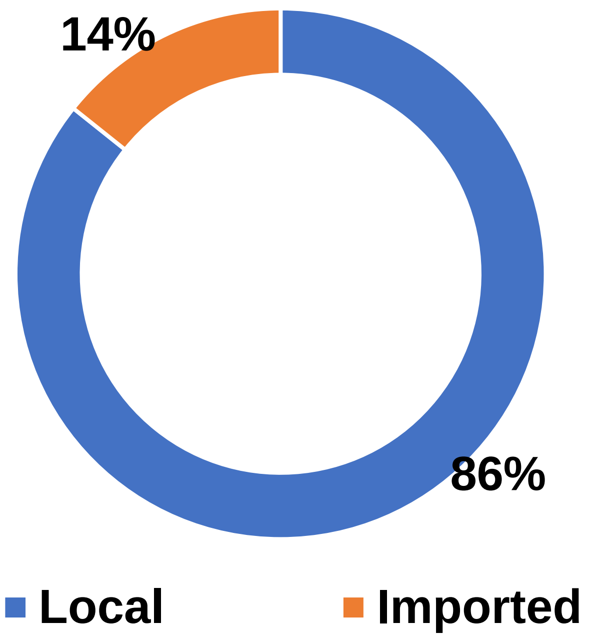
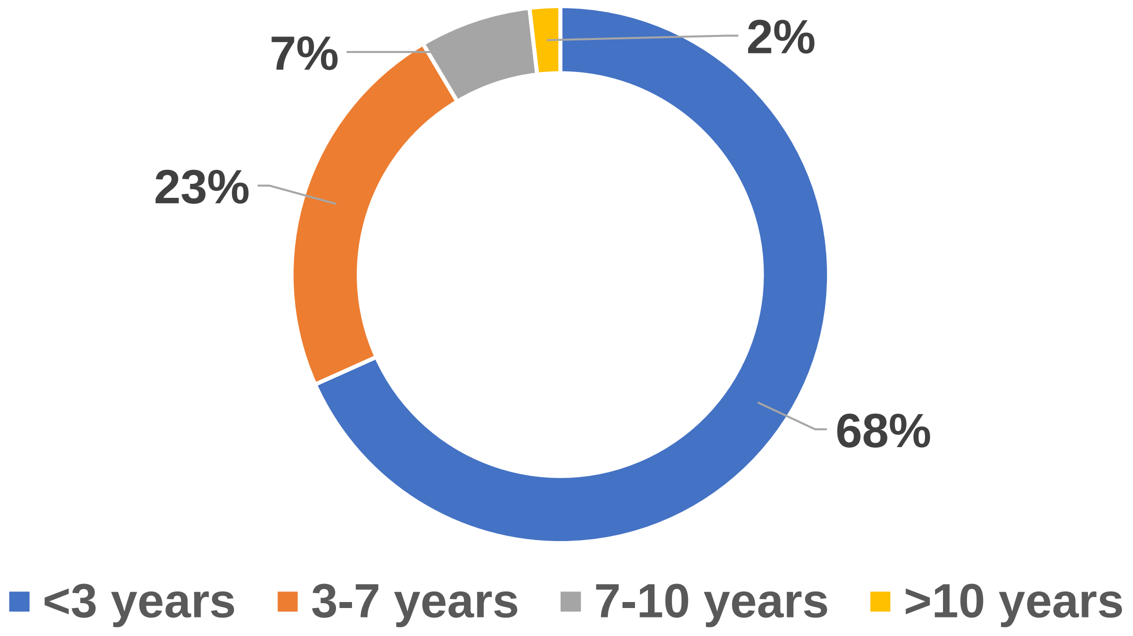


Fig. 43 Share of the Ages of Air-Conditioning Equipment (Ductless Split) installed in Households



Market Assessment of Air-Conditioning Appliance

Demand Side - Households

Fig. 44 Technology Type for Ductless Split Air-conditioners

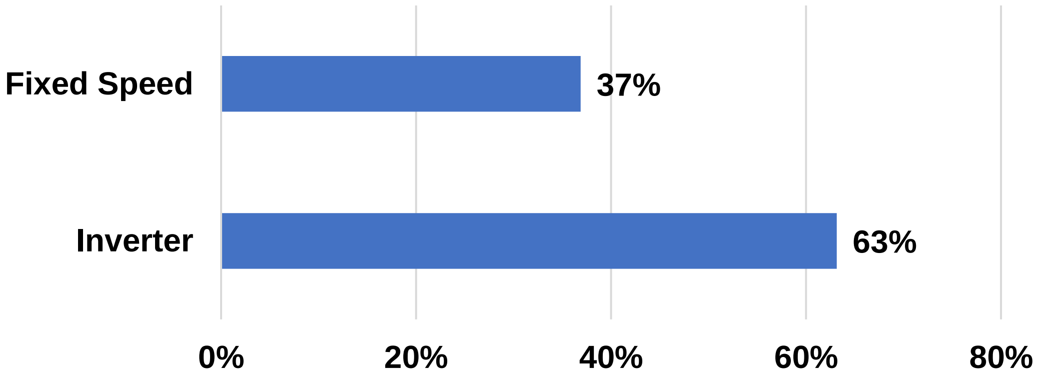


Fig. 45 Monthly Air-conditioning Usage Trend

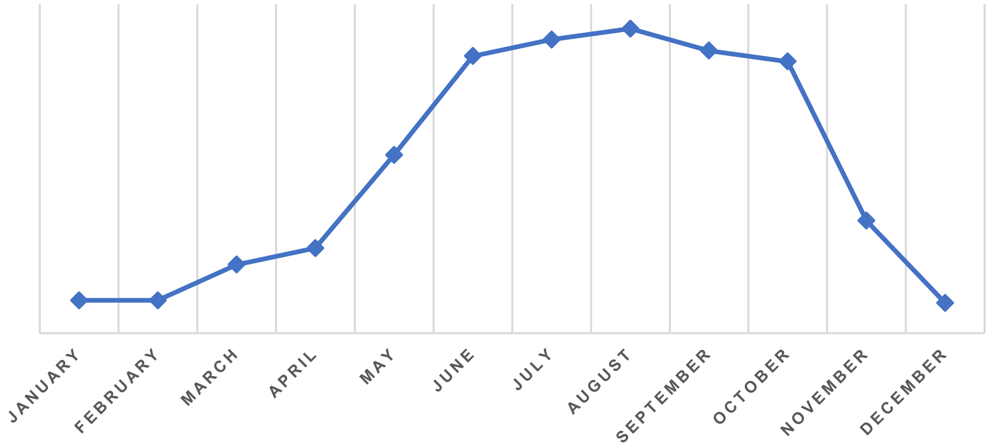
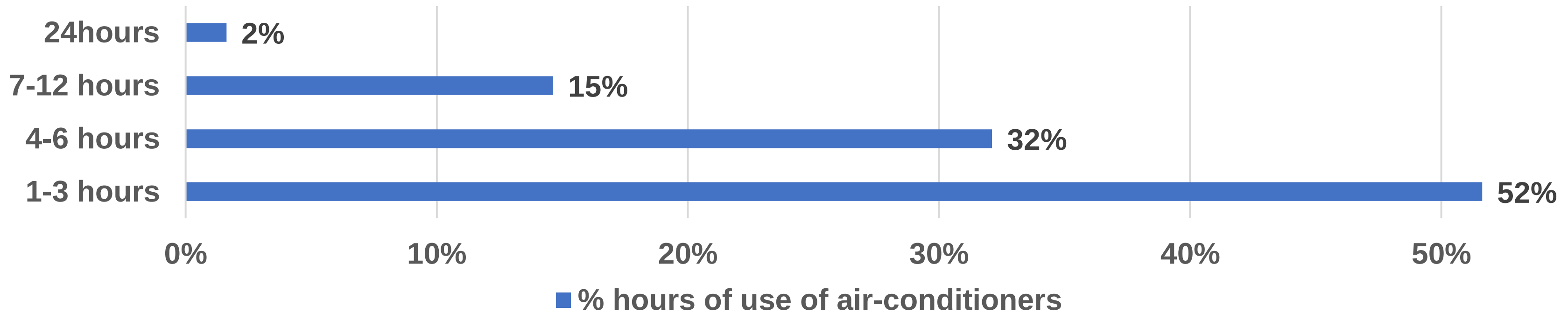
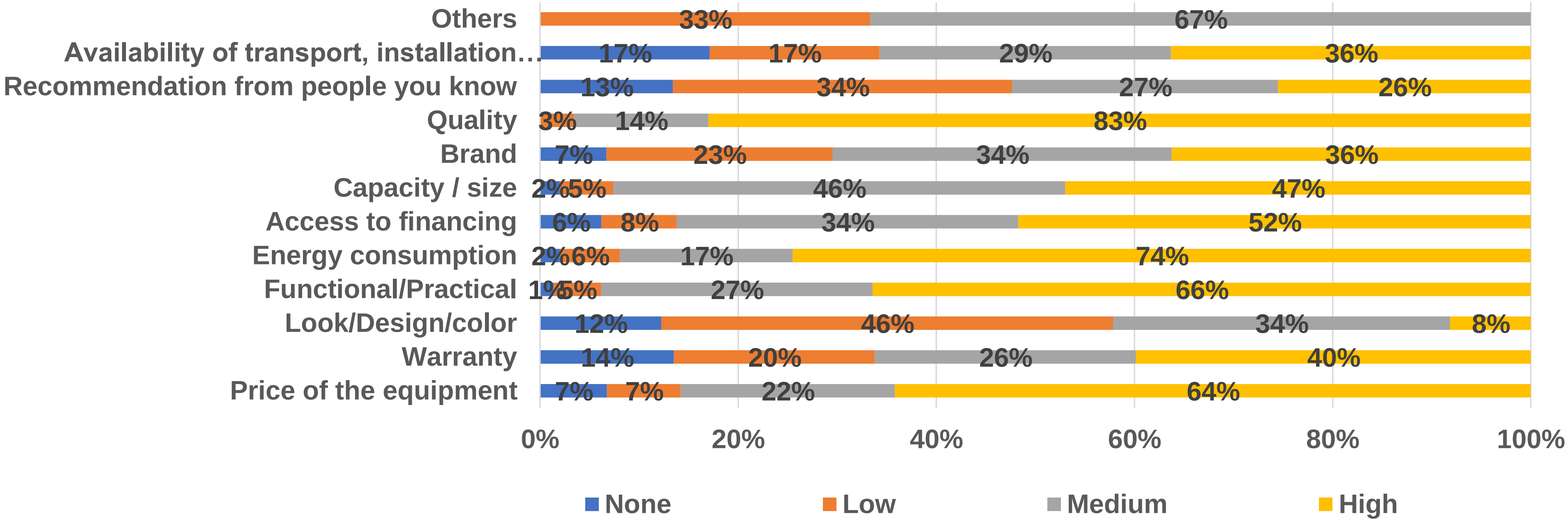


Fig. 46 Daily Usage Pattern of Air-Conditioners



Demand Side - Households

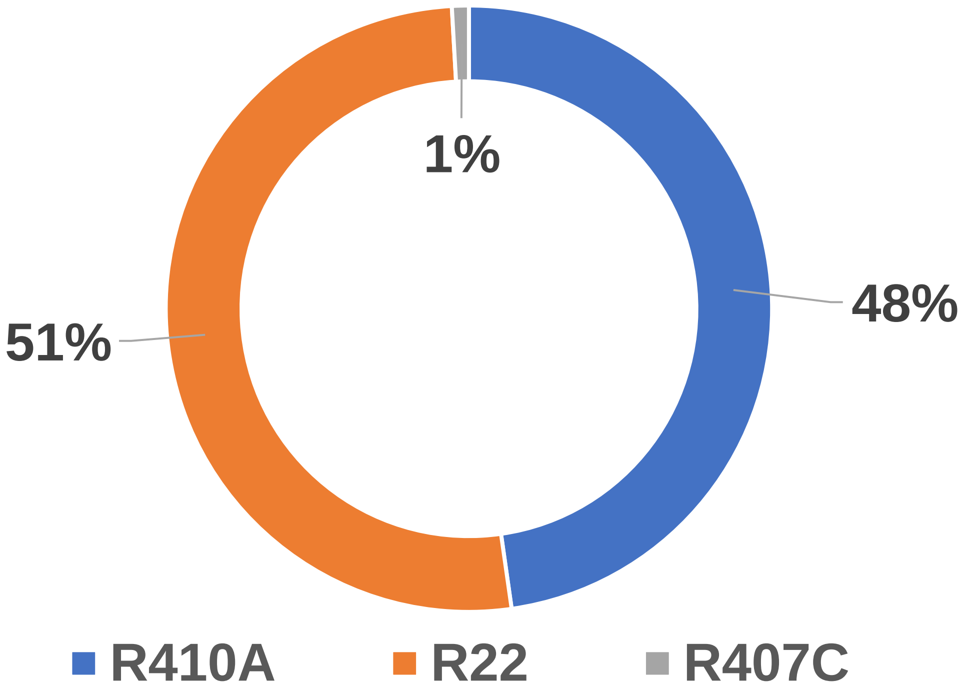
Fig. 47 Factors Influencing the Purchasing Decisions of Households Air-conditioners



Market Assessment of Air-Conditioning Appliance

Demand Side - Households

Fig. 48 Share of Refrigerants Used in Households' Air-conditioners



Market Assessment of Air-Conditioning Appliance

Demand Side - Hotels

Fig. 49 Technology Types of different Air-conditioning Equipment

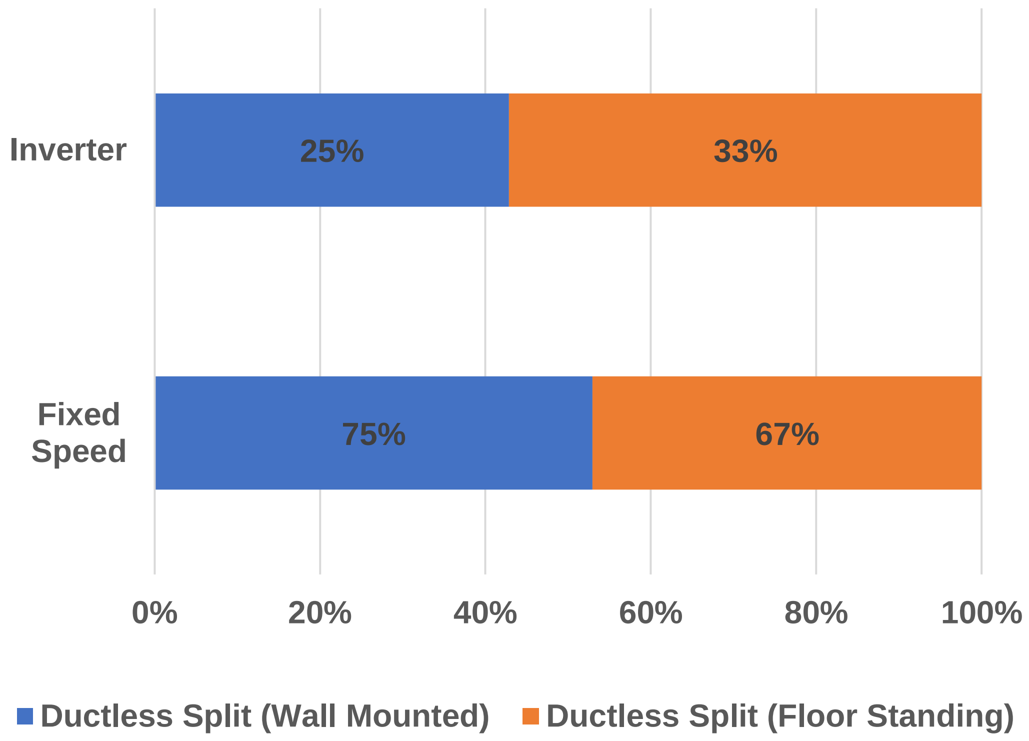
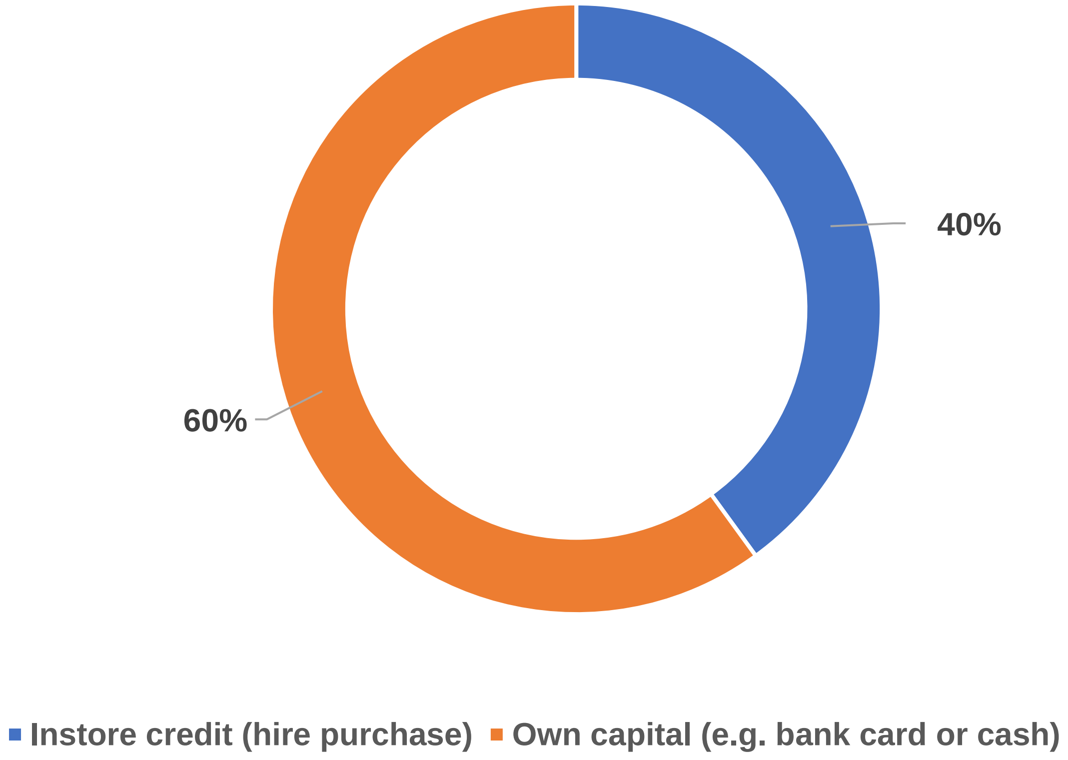


Fig. 50 Hotel's Source of funding for air conditioners



Demand Side - Hotels

Fig. 52 Share of Refrigerant Gases

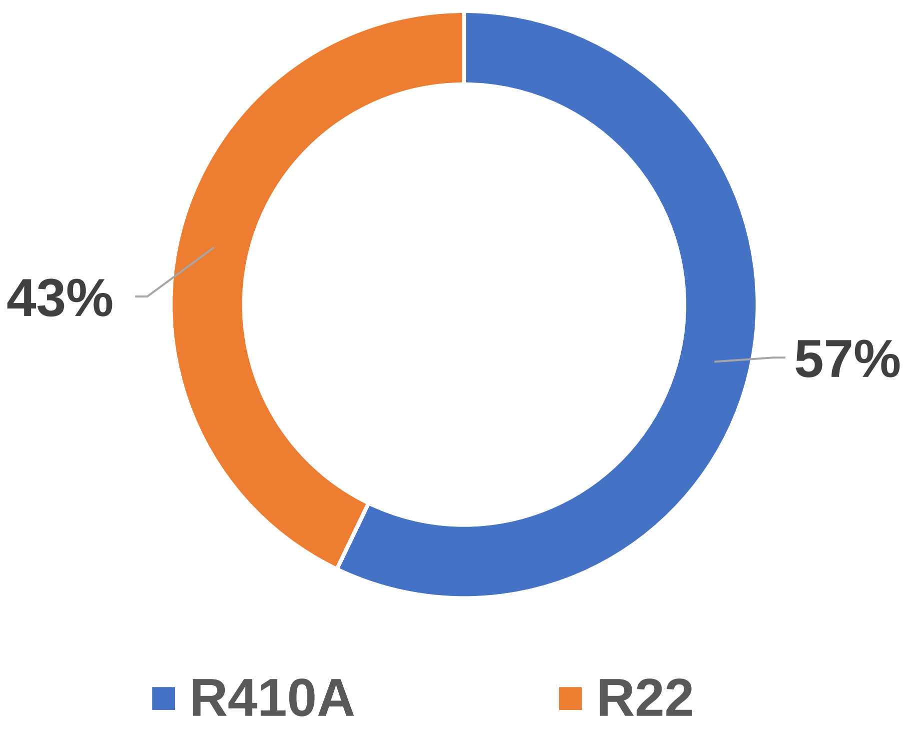
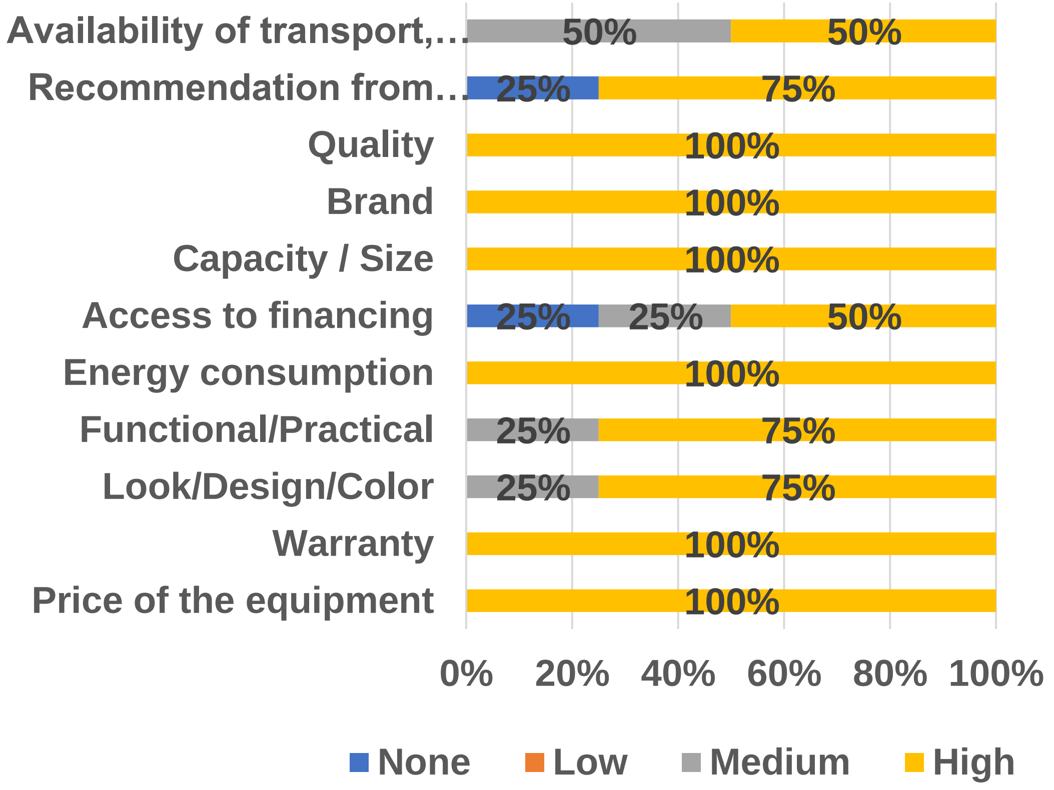


Fig. 51 Significance of Factors Influencing Hotels' Purchasing Decisions



Discussions/Q&A

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Presentation Slides IV

- **Survey Results – Financial & Government Institutions**
  - **Supply Side**
  - **Demand Side**

Financial Institutions/Financing Instruments

2

Types of Financing & Number of cards offered

Fig. 53 Types of Credits Offered

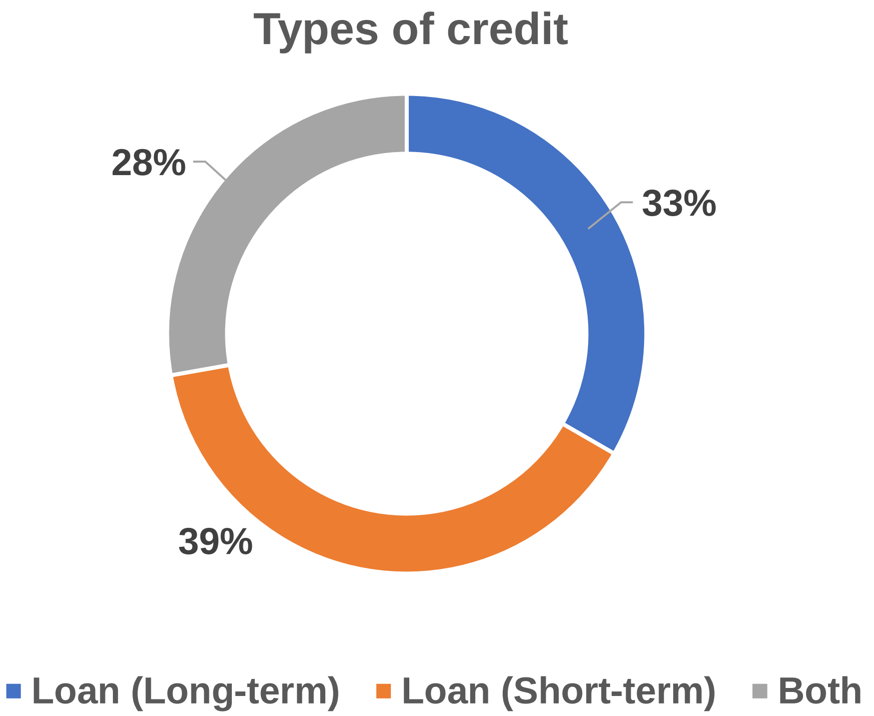
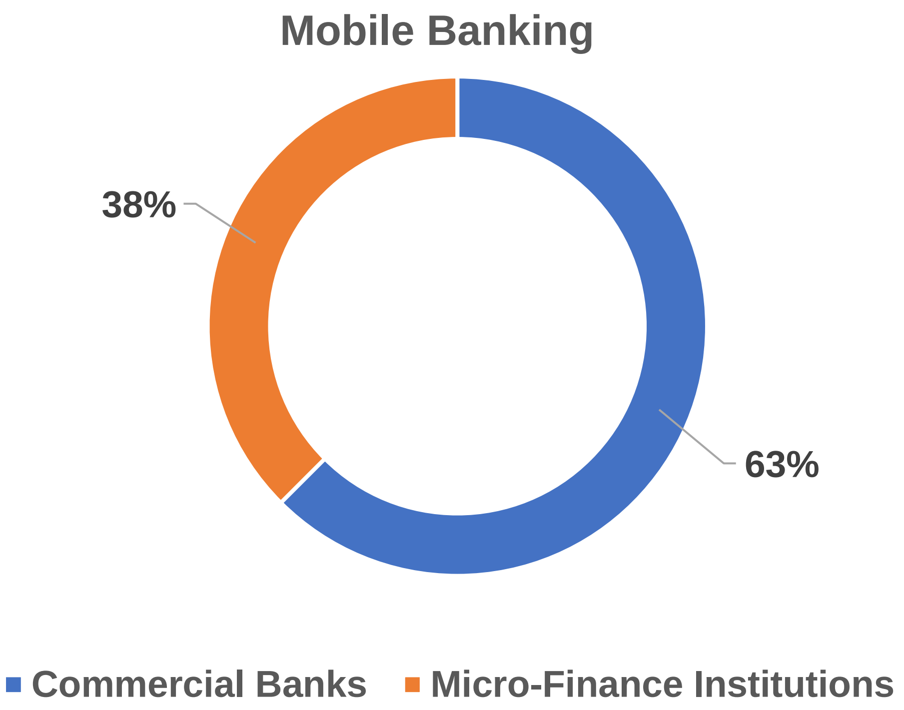


Fig. 54 Provision of Mobile Banking Services



3

Financial Institutions/Financing Instruments

Types of Financing & Number of cards offered

Tab. 10 Summary of Green Credit Facility by Financial Institutions

Description	Parameters	Frequency	Share %
Do you have a green credit line?	*Yes*	3	38%
	No	5	63%
If no, would you be interested in developing a green credit line?	*Yes*	4	67%
	Maybe	1	17%
	No	1	17%
What kind of products/services would you be most interested in financing through such green credit facility?	*Both (ACs & Refrigerators)*	7	54%
	Other Appliances (TVs, Fans)	2	15%
	Renewable Energy	2	15%
	Green Initiatives	2	15%
Do you already finance suppliers of energy efficient refrigeration equipment?	*Yes*	4	50%
	No	4	50%
Do you already finance suppliers of energy efficient air conditioning equipment?	*Yes*	4	50%
	No	4	50%
Do you have any perceived risks associated with financing energy efficient equipment?	*Yes*	4	50%
	No	4	50%
Do you consider environmental and social, governance requirements when financing a project?	*Yes*	5	63%
	No	3	38%
Perceived Risks associated with financing energy efficiency investments	*Low Awareness Levels*	1	25%
	Non-Repayment	1	25%
	Delays in Repayment	1	25%
	Unsustainability	1	25%

4 Financial Institutions/Financing Instruments

Level of Comfort, Number of Clients and the Annual Credit Allocations

Fig. 55 Level of Comfort in Financing Energy Efficiency Investments

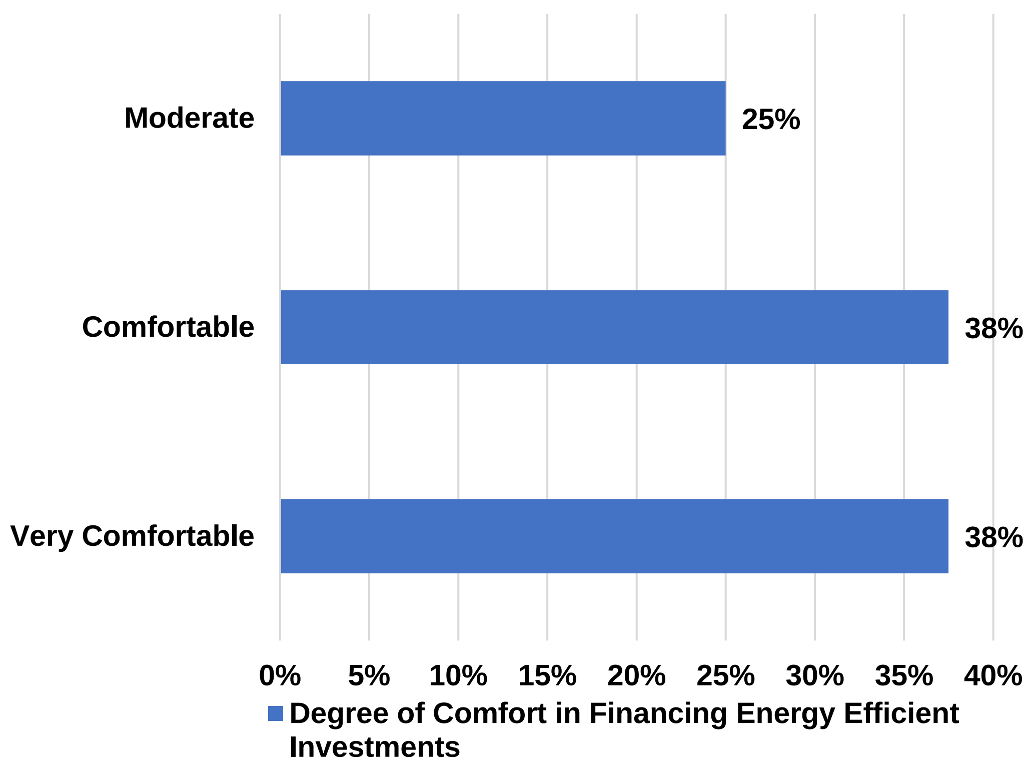
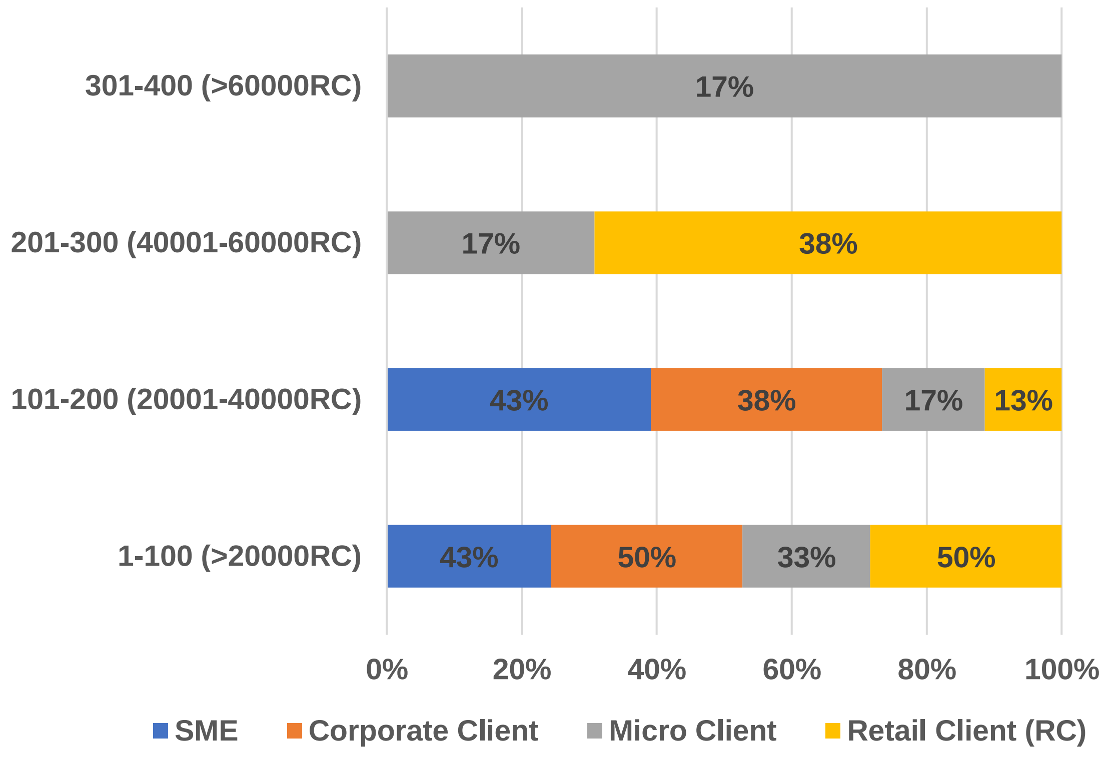


Fig. 56 Share of Clients served by Financial Institutions



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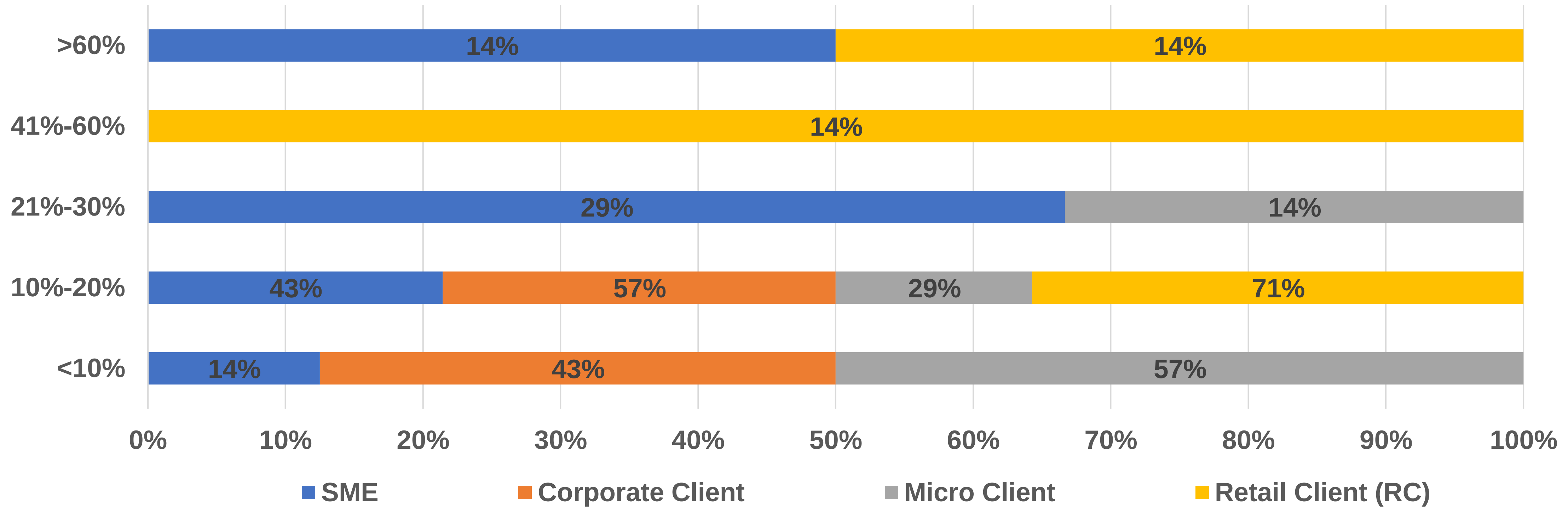
Financial Institutions/Financing Instruments

Level of Comfort, Number of Clients and the Annual Credit Allocations

Fig. 57 Share of Credit Allocation to Different Categories of Clients



Institutional Barriers and Potential Solutions

Fig. 58 Barriers to Purchasing of EE Product

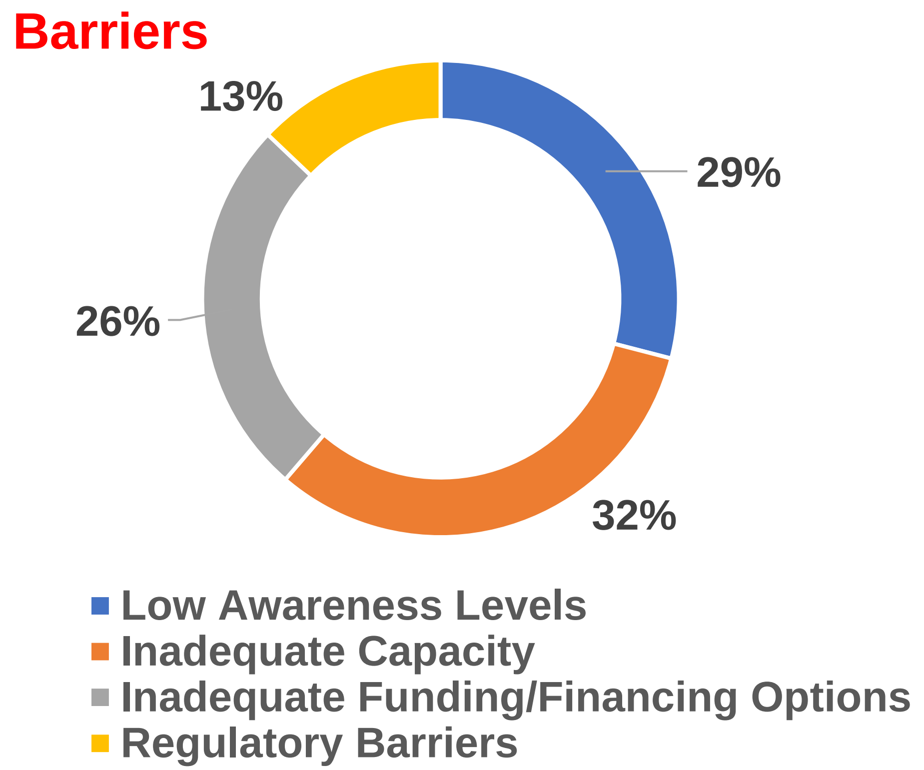
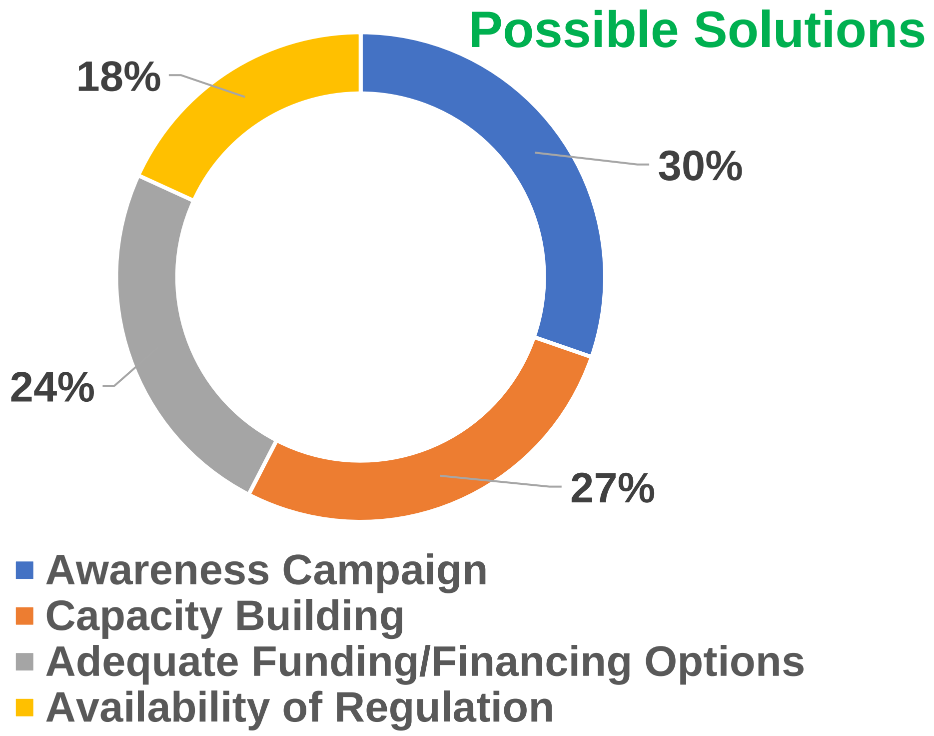


Fig. 59 Possible Solutions to Purchasing of EE Product



Government Institutions/Policy Instruments

Institutional Actions and Level of Involvements

Fig. 60 Key Actions to Increase the Availability of Energy Efficiency Products

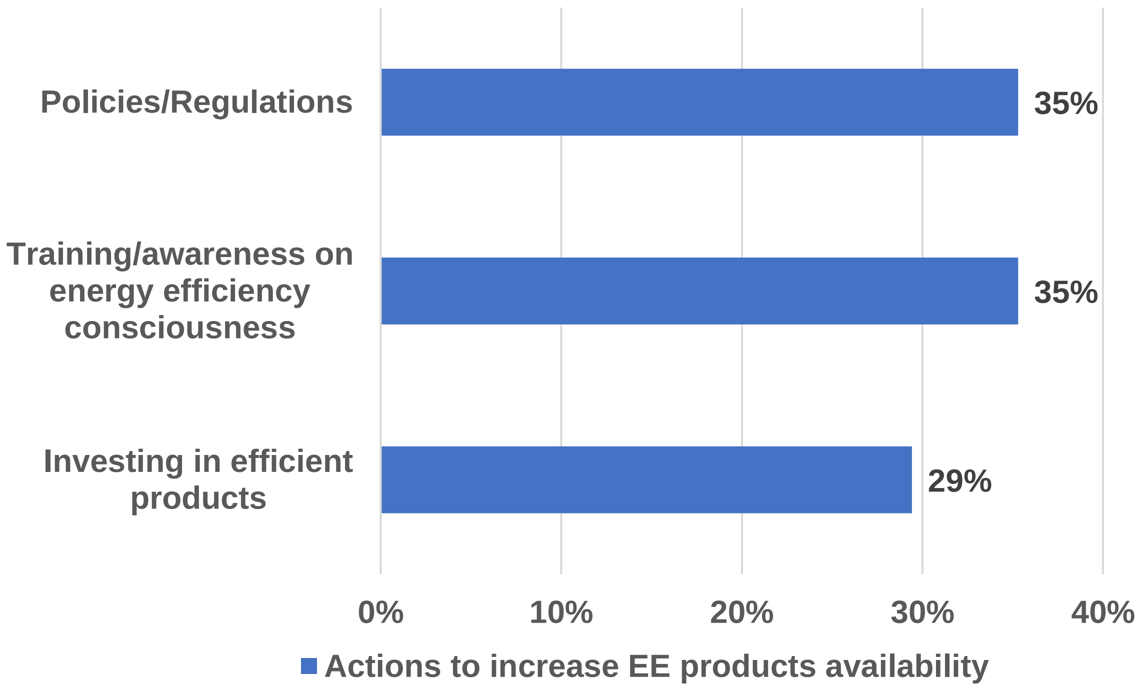
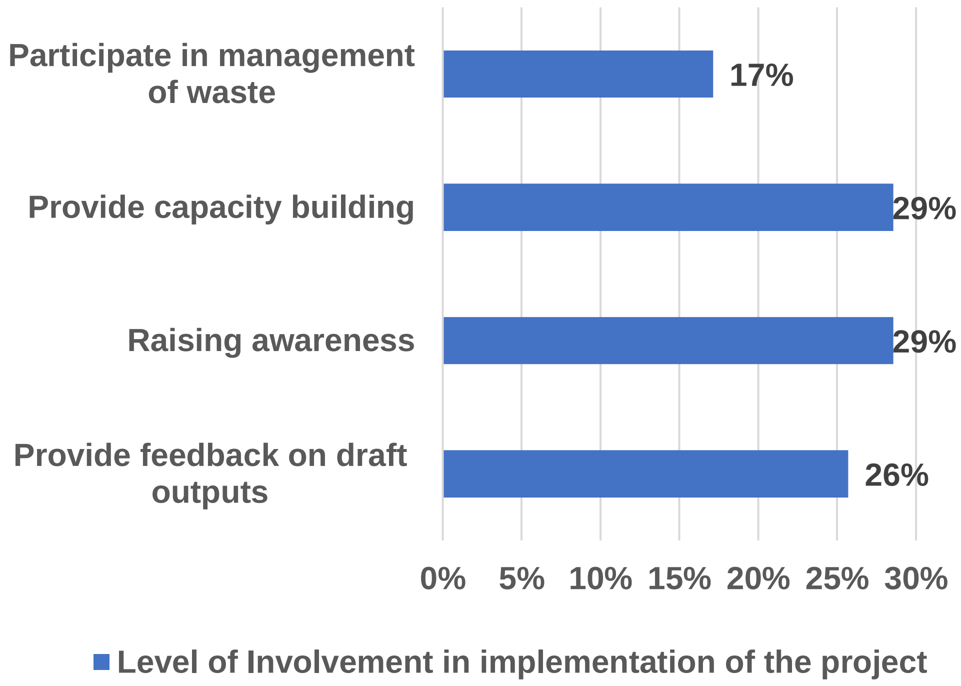


Fig. 61 Level of Involvement in the implementation of the Project



Discussions/Q&A

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Presentation Slides V

- Conclusions & Recommendations

Key Outputs of Market Assessment

- **On the supply-side of refrigerators and air-conditioners, there has been on average 41% annual increase in stock of refrigerating appliances during the period 2018 to 2022.**
- **Most importer/suppliers of new refrigerating appliances are mostly the main distributors of the main brands such as LG, Samsung, Beko, Hisense and Roch.**
- **While, the suppliers of used appliances supply several different brands were mainly Westpoint, Indesit, Croft, Hotpoint, Sharp, LG.**
- **Most Households prefer to purchase their refrigerating equipment from local second-hand suppliers/dealers, due to low price compared to new appliances stores,**
- **While the hotel industry usually purchase their refrigerating appliances are often obtained from new appliance stores. In contrast, for air-conditioning equipment, both the residential and hotel sectors usually obtained from new appliance suppliers/dealers.**
- **In addition, the most critical factor that affects the ability of brand-new suppliers to sell more energy-efficient refrigerators/ACs in The Gambian market is their high upfront costs compared to second hand suppliers.**

Key Outputs of Market Assessment

- With high tariff, high energy intensity, significant transmission and distribution losses, the demand-supply mismatch, reliance on imports and fossil fuel for power generation, provide the basis for improvements in energy efficiency in The Gambia.

- With the residential sector, refrigerator-freezers and freezers were mostly found and used, while in the hotel industry, chest freezers, walk in freezers, display units and mini-bars were the most frequent appliances found.

- For air-conditioners, the most frequently type found at both household and hotels were the ductless split type and most are of the inverter type for household, and fixed speed for hotels.

4 Conclusions & Recommendations

Key Recommendations

- Given the high penetration of inefficient and climate unfriendly of cooling technologies in the Gambian market, it is therefore suggested to put a banned or discourage the importation of these technologies especially inefficient second-hand appliances in to the country.

- With the adoption of the ECOWAS MEPS since 2017 coupled with the rapidly changing technology and the market assessment provide a sound basis for the revision of the current MEPS and enforcement strengthen through regulations.

- Since there is no energy label for the country and no ECOWAS label adopted at national level, it is therefore strongly recommended that a national energy label be developed.

- The development of the MEPs and labels should be accompanied with intense awareness raising campaign and sensitisation.

- Given limited access to finance the acquisition of energy efficient appliances by the consumers, there should innovative financial schemes, well targeted to cushion the upfront cost of energy efficient and climate friendly colling appliances in The Gambia.

THANK YOU

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