

# ST ANGELA'S FOOD TECHNOLOGY CENTRE

- BASED ON THE CAMPUS OF ST ANGELA'S COLLEGE, SLIGO
- WE WORK DIRECTLY WITH INDUSTRY, MOSTLY SME'S ACROSS ALL SUBSECTORS WITHIN THE FOOD AND BEVERAGE INDUSTRY, NORTH AND SOUTH.
- EACH MEMBER OF OUR TEAM HAS WORKED IN INDUSTRY PRIOR TO JOINING THE CENTRE WHICH GIVES US AN UNDERSTANDING OF WHAT OUR CLIENTS ARE EXPERIENCING DAY TO DAY.
- OUR MAIN AREAS OF EXPERTISE ARE NEW PRODUCT DEVELOPMENT, SENSORY ANALYSIS, FOOD SAFETY MANAGEMENT, SHELF LIFE ASSESSMENT AND NUTRITIONAL ANALYSIS.
- WE HAVE BEEN INSTRUMENTAL IN A NUMBER OF NEW PRODUCT LAUNCHES NATIONALLY.



# THE IMPORTANCE OF SENSORY EVALUATION AT THE FRONT END OF NEW PRODUCT DEVELOPMENT

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*IN THE FAST MOVING CONSUMER GOODS (FMCG)  
SECTOR THE FAILURE RATE OF NEW PRODUCTS IS  
BETWEEN 50-75%*

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DISKSTERHUIS, G, 2016

POTENTIAL DRIVERS LINKED TO THIS HIGH FAILURE RATE ARE A LOW RATE OF INVESTMENT IN RESEARCH AND DEVELOPMENT AND LACK OF CONSUMER VOICES IN THE NEW PRODUCT DEVELOPMENT PROCESS



# CONSIDER THE COMMON APPROACHES TO NPD, BREAKING IT DOWN BY COMPANY SIZE

*WHICH SIZE OF COMPANY WOULD YOU THINK ARE GETTING THE NPD  
PROCESS RIGHT?*

# LARGE COMPANY

- HAVE SPECIFIC TEAMS WITH CORE RESPONSIBILITIES
- LINKING TOGETHER TO FACILITATE A PRODUCT LAUNCH
- FOLLOWING THEIR COMPANY'S CRITICAL PATH TO NEW PRODUCT LAUNCH
- LAUNCH ONE PRODUCT/PRODUCT RANGE AND MOVE ON TO THE NEXT ONE

## *CONSIDER THE DIFFICULTIES IN THIS APPROACH WITHIN THIS TYPE OF COMPANY –*

- *MOST R&D PROJECT LEADERS HAVE A TECHNOLOGICAL BACKGROUND, OR ARE SUPERVISED BY A TECHNICAL MANAGER.*
- *THE TEAMS INVOLVED HAVE DIFFERENT AGENDAS WHICH COULD BE CONFLICTING, DIFFICULT TO GET A CONSENSUS THAT MEETS THE CONSUMERS NEEDS*

# MEDIUM SIZED COMPANY

- INDIVIDUALS RATHER THAN TEAMS RESPONSIBLE FOR CORE COMPANY FUNCTIONS
- WORKING AS A GROUP TO DEVELOP NEW PRODUCTS/PRODUCT RANGES ACROSS THE DISCIPLINES

## *CONSIDER THE DIFFICULTIES IN THIS APPROACH WITHIN THIS TYPE OF COMPANY –*

- R&D MAY BE RESTRICTED BY A REDUCED BUDGET, LIKE THE LARGER COMPANIES ARE POSITIONED WITHIN THE TECHNICAL DEPARTMENTS, NOT STAND ALONE.
- ARE AWARE OF THE PROGRESS OF THE NEW PRODUCTS ON THE MARKET BUT MAY NOT HAVE THE RESOURCES TO ANALYSE IT.
- UNDER PRESSURE TO CONTINUE TO BE INNOVATIVE

# SMALL COMPANIES

- ONE PERSON WEARING MANY HATS WITHIN THE COMPANY
- R&D COULD BE AD HOCK WITHOUT FOLLOWING ANY CLEAR CRITICAL PATH

*CONSIDER THE DIFFICULTIES IN THIS APPROACH WITHIN THIS TYPE OF COMPANY –*

- NEW INNOVATION ALTHOUGH NECESSARY COULD POSE A RISK IF NOT SUCCESSFUL, CREATING A FEAR FACTOR
- OR

THE FLIP SIDE ARE SO FULL OF IDEAS THEY JUMP IN WITHOUT THINKING THINGS THROUGH

- MAY NOT HAVE EXPERTISE IN HOUSE AND NEED TO OUTSOURCE THIS FUNCTION TO DEVELOP NEW CONCEPTS
- ARE ACUTELY AWARE OF HOW THEIR PRODUCT IS DOING IN TERMS OF SALES – FEEL PRESSURE TO SUCCEED

SO WHICH COMPANY SIZE IS GETTING IT RIGHT?

*THE ANSWER IS:*

*THE COMPANY THAT TAKES INTO CONSIDERATION THE  
CONSUMERS MOTIVATION FOR CHOICE*

THIS SHOULD BE INCORPORATED INTO YOUR CRITICAL PATH  
TO NEW PRODUCT LAUNCH



# MARKET LED VERSUS CONSUMER LED

- THE MARKETING APPROACH CAN BE VERY PRESSURE DRIVEN – THE NEED TO MOVE WITH THE MARKET & FOLLOW TRENDS
- A SCIENTIFIC APPROACH TO UNDERSTANDING CONSUMER BEHAVIOUR CAN BE LACKING ALTHOUGH THERE ARE POSITIVE SIGNS THAT THIS IS CHANGING AS THE BENEFITS OF SENSORY EVALUATION IS BECOMING MORE WIDELY KNOWN
- CONSUMER RESEARCH IS BASED ON PSYCHOLOGICAL/BEHAVIOURAL SCIENCE – THIS MAY BE NOVEL FOR SMALLER COMPANIES WITH LIMITED RESOURCES OR LARGER COMPANIES WHO HAVE LONG ESTABLISHED TEAMS THAT ARE SET IN THEIR WAYS
- THE IMPORTANT THING TO REMEMBER IS THAT THE SENSORY METHODS ARE DEvised TO TAKE THESE PSYCHOLOGICAL FACTORS INTO CONSIDERATION, SO FOLLOWING THE METHODS IS AN IMPORTANT ASPECT OF SENSORY EVALUATION.

# CONSUMER LED RESEARCH

IT MAY BE DIFFICULT TO LOOK AT THE BIGGER PICTURE OR LONGER TERM GOALS BUT THIS IS WHERE SENSORY EVALUATION AND CONSUMER LED RESEARCH COMES INTO PLAY:

1. STARTING WITH YOUR PRODUCT CONCEPT/POTENTIAL BRANDING – YOUR **OBJECTIVE** IS TO ASSESS IF THIS IS A VIABLE CHOICE FOR YOUR COMPANY TO DEVELOP
2. DEVELOP YOUR PROTOTYPE - YOUR **OBJECTIVE** IS TO TEST THIS FOR ACCEPTABILITY & LIKING FOR EXAMPLE
3. TWEAK RECIPES TO ADDRESS ANY ISSUES IDENTIFIED – YOUR **OBJECTIVE** IS TO TEST FOR LONG TERM VIABILITY
4. PRODUCT LAUNCH – YOUR **OBJECTIVE** IS TO MEASURE THE PERFORMANCE OF THE PRODUCT POST LAUNCH & USE THE LEARNINGS TO IMPROVE YOUR PROCESS FOR THE NEXT PRODUCT INNOVATION.

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT

## ASSESSING NEW CONCEPTS/BRANDING/PACKAGING:

QUALITATIVE ANALYSIS IS AN IMPORTANT STEP IN ASSESSING NEW IDEAS, METHODS LIKE FOCUS GROUPS ARE THE MOST POPULAR WAY OF GATHERING THIS TYPE OF DATA

WHEN CONDUCTING A FOCUS GROUP, IT IS IMPORTANT TO TARGET YOUR EXPECTED DEMOGRAPHIC WHEN RECRUITING POTENTIAL CONSUMERS.

IT IS OFTEN BEST TO OUTSOURCE THIS TO ENSURE IT IS INDEPENDENT – AS YOU MAY BE TOO CLOSE TO THE PROJECT

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT:

## FOCUS GROUPS:

- USE SMALL GROUPS 6-8 PARTICIPANTS
- DO A WARM UP, ICE-BREAKER TO ENSURE EVERYONE IS COMFORTABLE AND WILLING TO CONTRIBUTE.
- PREPARATION IS KEY – HAVE SET QUESTIONS WHICH ARE NOT LEADING & ALLOW YOUR PARTICIPANTS TO HAVE AN OPEN DISCUSSION, FOLLOW A STRICT TIMEFRAME.
- VIDEO/AUDIO RECORD THE SESSIONS AS YOU CAN REALLY ASSESS THE BODY LANGUAGE WHICH SHOWS YOU THE INVOLUNTARY/ EMOTIONAL RESPONSE TO THE PRODUCT
- ASK SOMEONE TO BE A NOTE TAKER – THE MORE INFORMATION YOU CAN GATHER THE BETTER.
- USE PROPS, SAMPLES, ANYTHING THAT WILL GET THE PARTICIPANTS CONVERSING ABOUT THE TOPIC/PRODUCT CONCEPT
- CONDUCT MORE THAN ONE SESSION TO ENSURE THE RESULTS ARE ROBUST
- COMPILE ALL OF THE INFORMATION AND USE THIS DATA TO INFORM THE PROTOTYPE DEVELOPMENT STAGE

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT:

## CENTRAL LOCATION TESTS (CLT):

- THIS IS USUALLY THE TYPE OF TESTS THAT COMPANIES EMPLOY TO ASSESS NEW SAMPLE PROTOTYPES, THIS COULD BE COMPLETED USING AFFECTIVE METHODS LIKE PAIRED PREFERENCE OR RANKING TESTS, OR HEDONIC RATING.
- THESE METHODS ARE USED TO VERIFY THE QUALITY OF THE PRODUCT AND SAMPLES ARE USUALLY BLIND TASTED TO REMOVE BIAS. QUALITY IS IMPORTANT BUT BLIND TASTING MAY ONLY GIVE YOU PART OF THE PICTURE – THIS NEEDS TO BE COMBINED WITH THE QUALITATIVE INFORMATION COLLECTED IN THE FOCUS GROUPS.
- FIRST ORDER EFFECT IS SOMETHING WHICH NEEDS TO BE TAKEN INTO CONSIDERATION WHEN CONDUCTING CLT'S AS PANELLISTS CAN SCORE THE FIRST SAMPLE HIGHER WHEN IT MAY NOT BE THE BEST SAMPLE IN THE SAMPLE SET. THIS CAN BE COUNTERACTED BY USING A DUMMY SAMPLE IN EACH SET, OR DOING SOME WARM UP TESTS AHEAD OF THE MAIN SAMPLE SET.

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT:

- IT IS ALSO IMPORTANT TO CONSIDER THE TYPES OF QUESTIONS YOU ASK IN THE CLT AND IN WHAT ORDER YOU ASK THEM.
- IF YOU ARE USING HEDONIC RATING (9 POINT SCALE – RANGING FROM DISLIKE EXTREMELY TO LIKE EXTREMELY) AND WANT TO INCLUDE AN ATTRIBUTE SCALE LIKE A JAR SCALE (FOR EXAMPLE WHEN ASSESSING FLAVOUR – 1- TOO WEAK, 3- JUST ABOUT RIGHT, 5 – TOO STRONG) – HOW YOU POSITION THESE QUESTIONS MAY INFLUENCE YOUR OVERALL LIKING SCORES.
- IF YOU WANT THEIR INITIAL ‘GUT’ RESPONSE – THEN ASK THE LIKING QUESTION FIRST, FOLLOWED BY A SPECIFIC ATTRIBUTE QUESTION NEXT – AVOID ASKING TOO MANY QUESTIONS.

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT:

- SOME NEW PRODUCTS CAN START OFF GREAT BUT SALES CAN DIE DOWN AFTER A PERIOD OF TIME, FOR ANY NUMBER OF REASONS – PEOPLE COULD BE GETTING BORED OF THE PRODUCT, OR GROW TO DISLIKE THE PRODUCT.
- ON THE OTHER SIDE OF THE COIN, YOU COULD HAVE A COMPLEX PRODUCT THAT PEOPLE INITIALLY DISLIKE BUT WITH REPEATED PURCHASES THEY COULD GROW TO LIKE, LIKE A NOVEL FUNCTIONAL FOOD WITH ADDED HEALTH BENEFITS FOR EXAMPLE.
- CLT CAN ALSO BE USED TO MEASURE THESE POTENTIAL EFFECTS BY ASKING THE PANELLISTS TO TAKE REPEATED SIPS, RECORDING THEIR LIKING AS THEY PROCEED THROUGH THE TEST. BY GRAPHING THE RESULTS, YOU CAN SEE POSITIVE OR NEGATIVE TRENDS, GIVING A INDICATION OF LONG TERM LIKING.

# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT

## HOME USE TESTS (HUT)

- ARE A GOOD WAY OF ASSESSING A PRODUCT IN CONTEXT. THERE IS A CERTAIN AMOUNT OF RELIANCE ON THE PARTICIPANT TO FOLLOW INSTRUCTIONS AND RECORD THE OUTCOMES, SO ITS NOT AS STRICTLY CONTROLLED AS CLT'S BUT THE CONTEXT EFFECT IS SOMETHING THAT NEEDS CONSIDERING WHEN ASSESSING NEW PRODUCTS.
- TRADITIONAL SENSORY METHODS PRESENT A SMALL SAMPLE, WITH A 3 DIGIT CODE. ITS NOT THE WAY CONSUMERS USUALLY TASTE PRODUCTS SO BY CONDUCTING THE TEST IN THE PARTICIPANTS HOME, YOU ARE RE-INTRODUCING AN ELEMENT OF CONTEXT, DEPENDING ON THE PRODUCT.



# SENSORY EVALUATION METHODS FOR EACH STAGE OF DEVELOPMENT

- YOU MAY ALSO BE ABLE TO ASSESS THE PACKAGING FUNCTIONALITY AS WELL AS THE PRODUCT ITSELF, GATHERING MORE INFORMATION ON THE PRODUCT PRIOR TO LAUNCH.
- YOU CAN ALSO GATHER INFORMATION ON THE EMOTIONAL RESPONSE BY INCLUDING SOME QUESTIONS ON THE BALLOT, LIKE HOW THE PRODUCT MADE THE CONSUMER FEEL? WOULD THEY BE INCLINED TO PURCHASE THIS PRODUCT AGAIN? ENCOURAGE THEM TO WRITE DOWN COMMENTS. THE RESPONSES MAY BE MORE GENUINE WHEN THEY ARE IN THE COMFORT OF THEIR OWN HOME.
- AS WITH THE CLT – DON'T ASK TOO MANY QUESTIONS

# RECAP

- BRINGING THE CONSUMER INTO YOUR NPD PROCESS IS KEY TO A GOOD PRODUCT LAUNCH
- USE SOME OF THE ALLOCATED BUDGET OR SEEK FUNDING FOR SENSORY EVALUATION. THIS CAPTURES VERY IMPORTANT INFORMATION THAT MAY BE THE DIFFERENCE BETWEEN LAUNCHING A SUCCESSFUL PRODUCT OR THE PRODUCT FAILING IN 6 MONTHS
- FOLLOW THE WELL ESTABLISHED SENSORY METHODS AND DO NOT FALL INTO THE PITFALLS THAT COULD GIVE YOU FALSE POSITIVES, LIKE FIRST ORDER EFFECT AND ASKING TOO MANY QUESTIONS.
- GATHER INFORMATION AT EACH STAGE OF THE DEVELOPMENT PROCESS, NOT JUST THE QUANTITATIVE DATA, OR EVEN QUALITATIVE ALONE, BE OBSERVANT, GATHER EMOTIONAL RESPONSES TO THE NEW PRODUCT CONCEPTS. WE ARE EMOTIONAL BEINGS!

THANK YOU FOR LISTENING

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